

**SONY**

VIDEOCASSETTE PLAYER

**BVW-65P**



**BETACAM SP**™

MAINTENANCE MANUAL

Volume 2 3rd Edition (Revised 10)

Serial No. 10061 and Higher

EBU N-10 LEVEL

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DUS-269	
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DUS-269 .....	
DUS-288 .....	17-3(a)
EQ-26 .....	
EQ-28 .....	
TBC-7P .....	17-11(a)
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TBC-7P .....	17-11(b)
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PC-47 .....	
CCM-2 .....	
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PTC-32 .....	
DP-71A .....	
PT-9 .....	

## TIME CODE

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## POWER SUPPLY

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M1 .....	
M2 .....	
C1 .....	
C2 .....	

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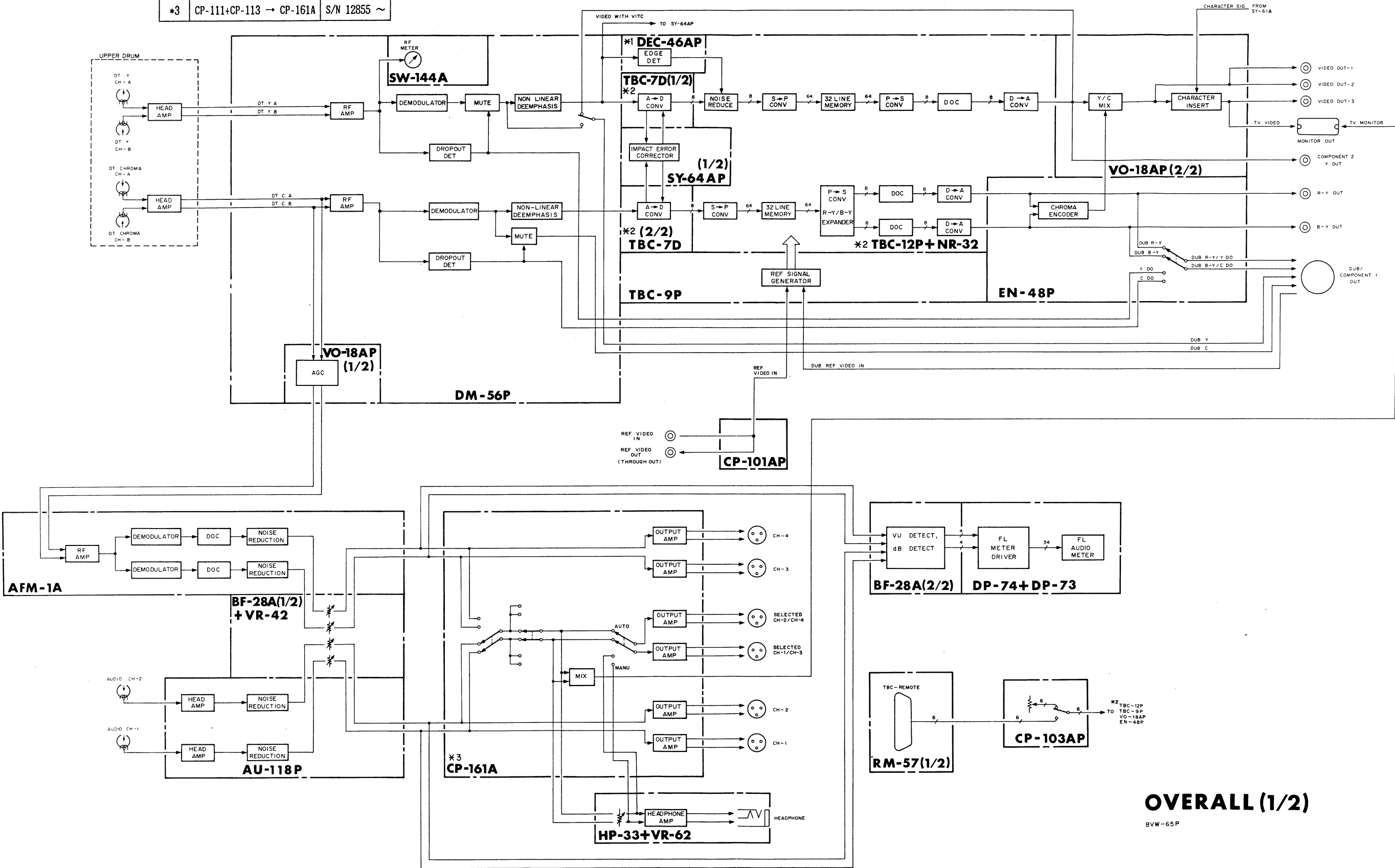
**SECTION 15**  
**BLOCK DIAGRAM**

OVERALL

NOTE

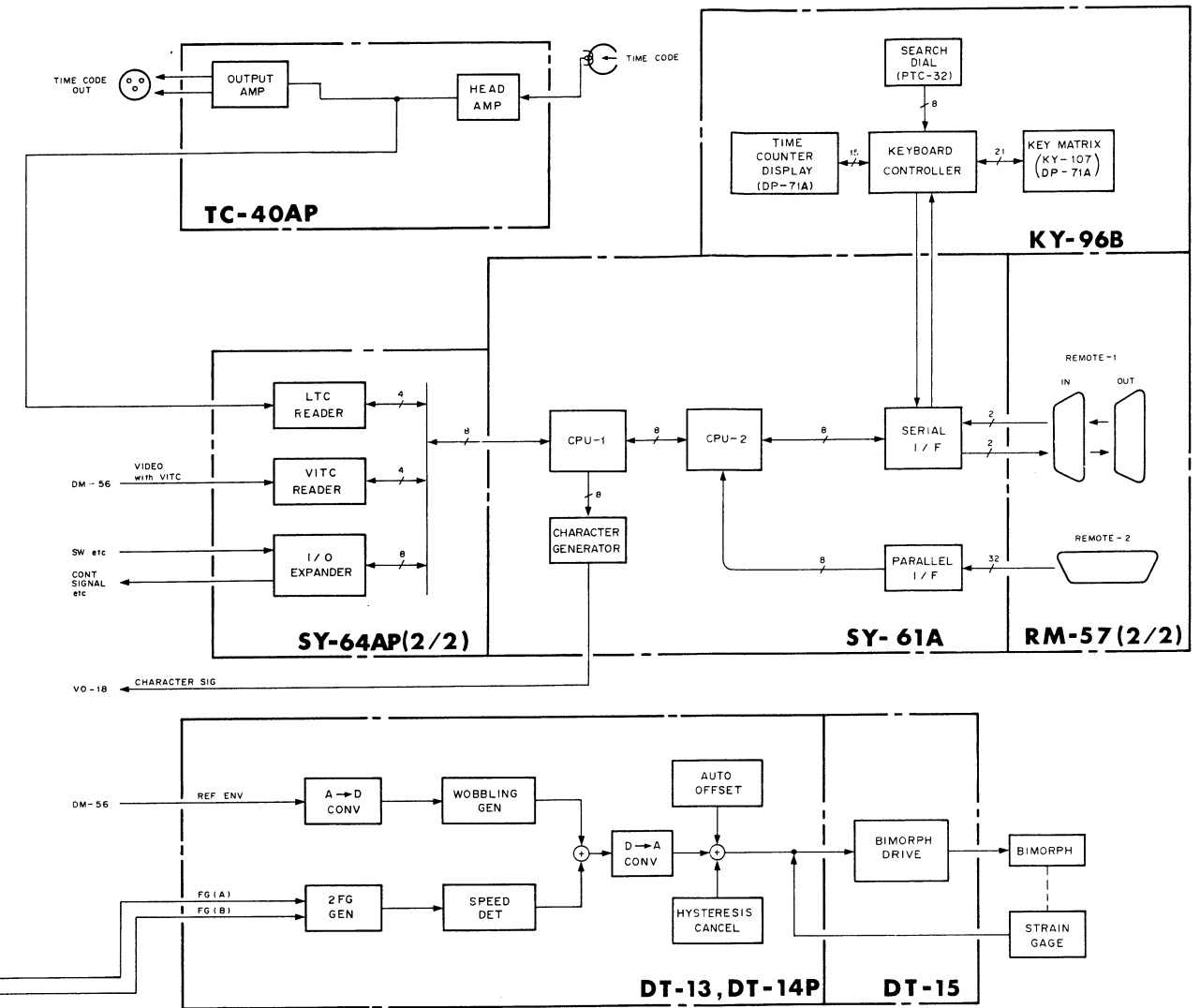
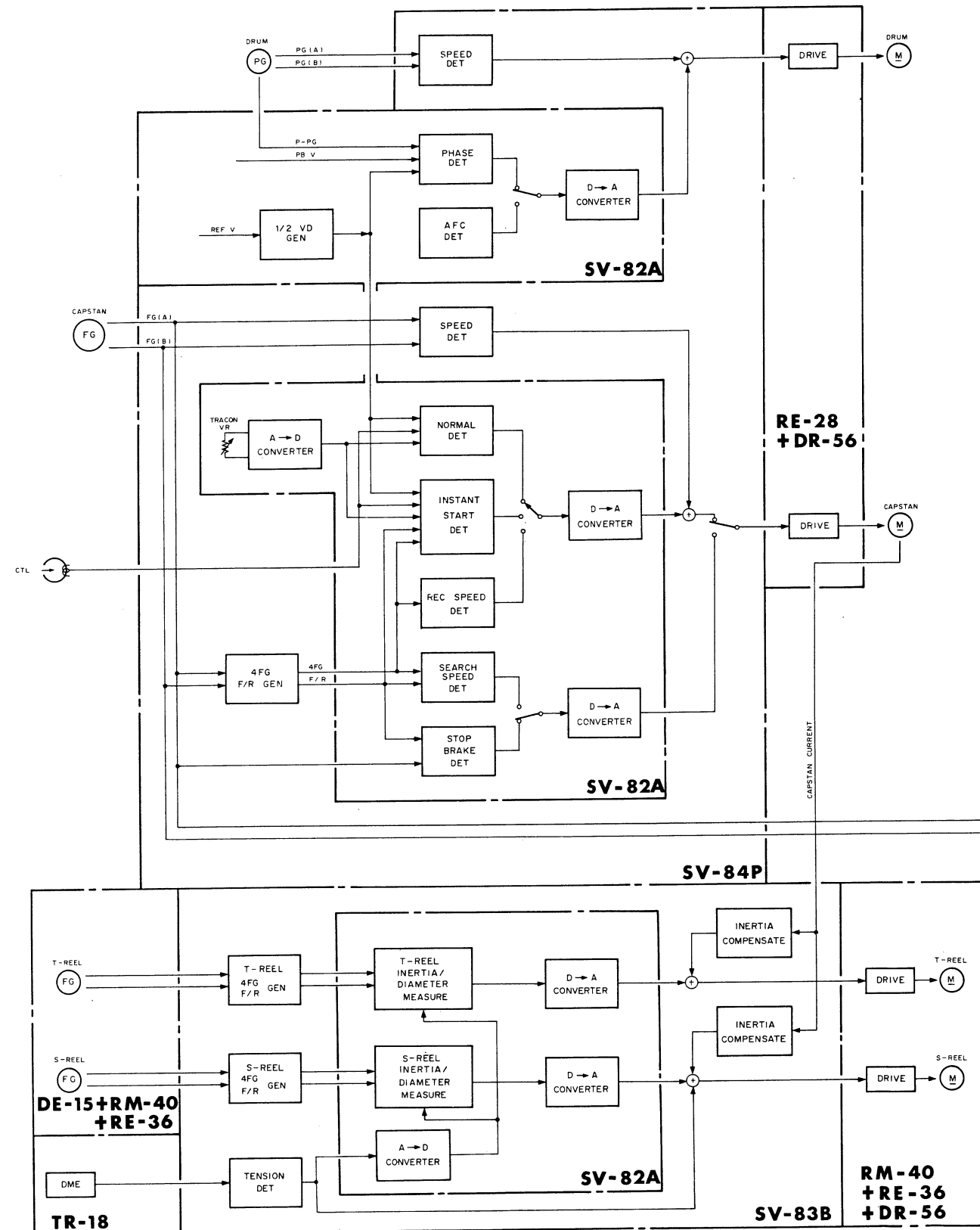
MARK	CHANGE INFORMATION	SERIAL NO.
*1	DEC-39A → DEC-46AP	S/N 10670 ~
*2	TBC-7P → TBC-7D TBC-8P → TBC-12P NR-25 → NR-32	S/N 10770 ~
*3	CP-111+CP-113 → CP-161A	S/N 12855 ~

OVERALL OVERALL



OVERALL (1/2)

8VW-65P



Note on Block Diagram

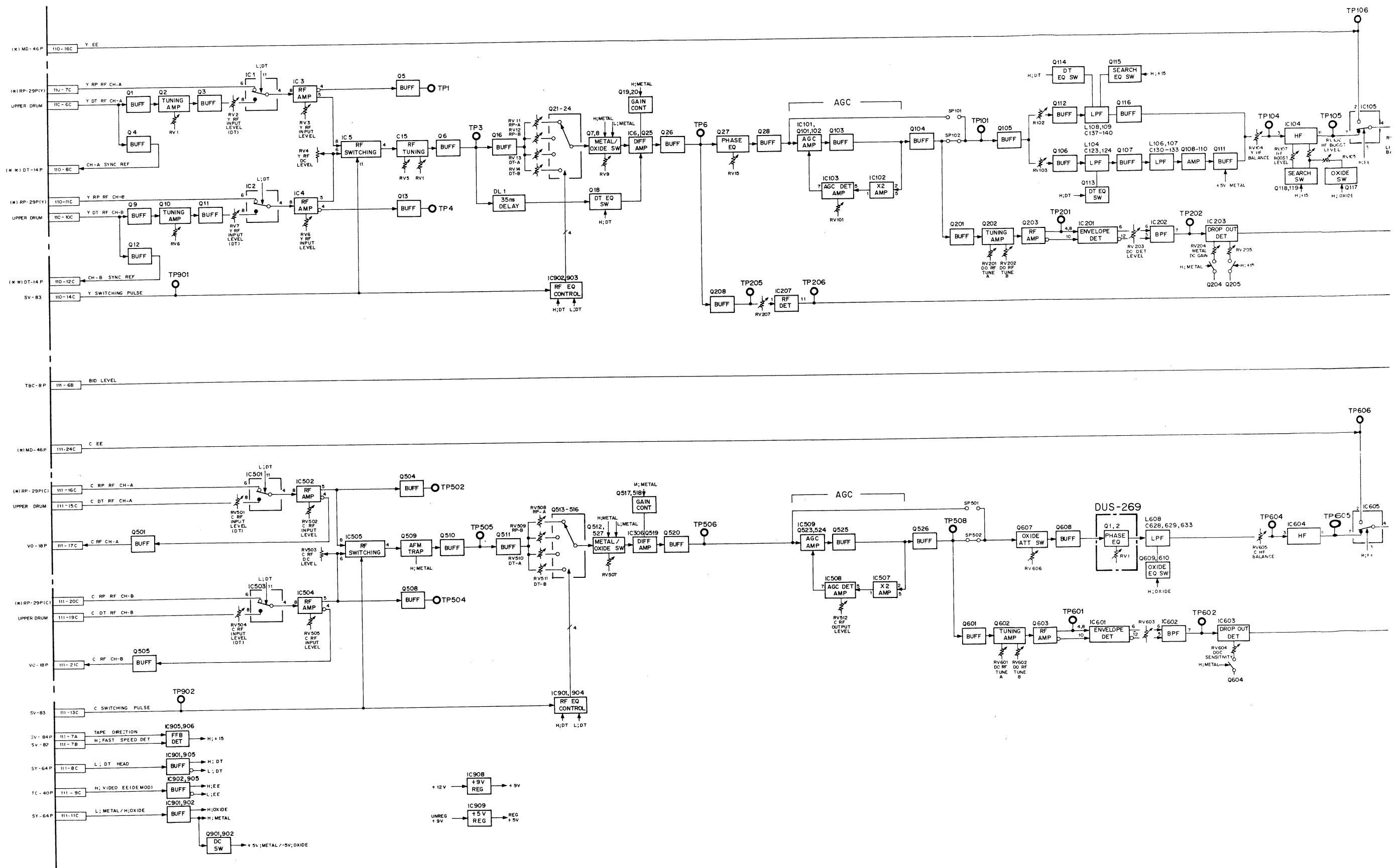
See the overall block diagram for the connector destination's board name in each board's block diagram.

## OVERALL (2/2)

BVW-65P

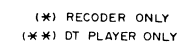
## Y/C DEMODULATOR

S/N 10061 through 10191



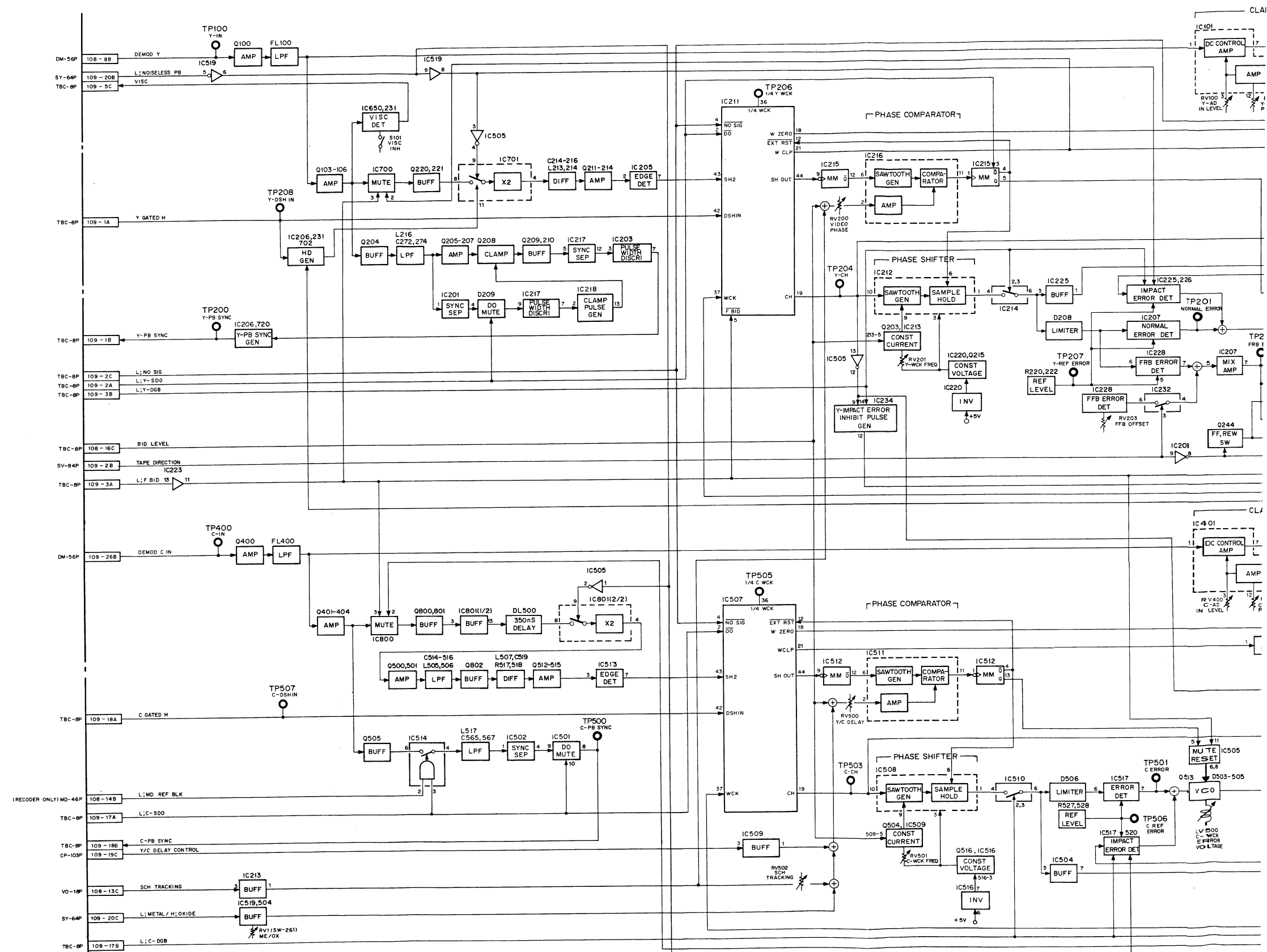


Y/C DEMOD      Y/C DEMOD

**DM-56P**

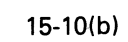
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

S/N 10061 through 10191

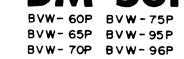




S/N 10192 and higher



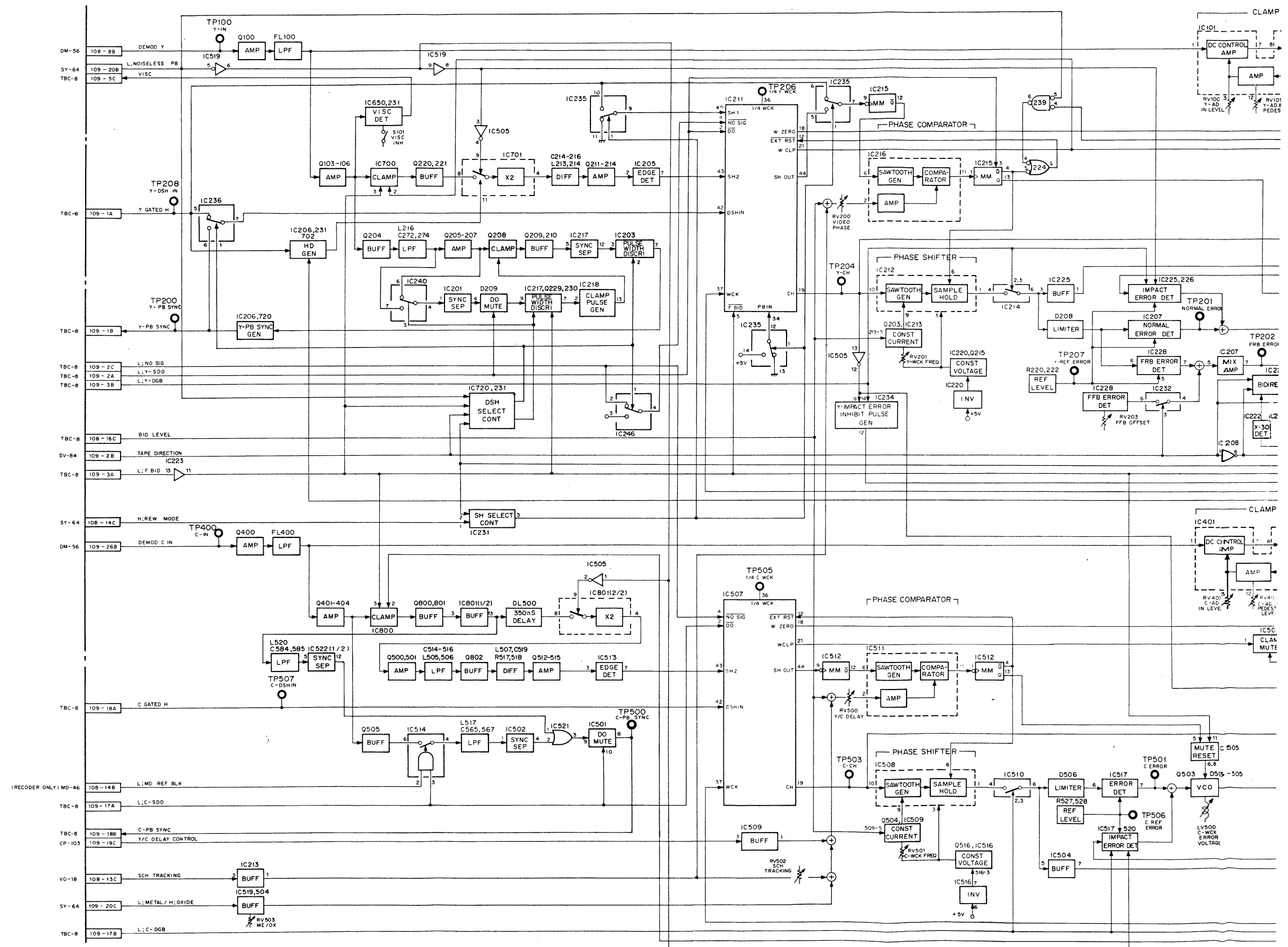
Y/C DEMOD



# A/D CONVERTER WRITE CLOCK GENERATOR

S/N 10192 through 10769

TBC TBC



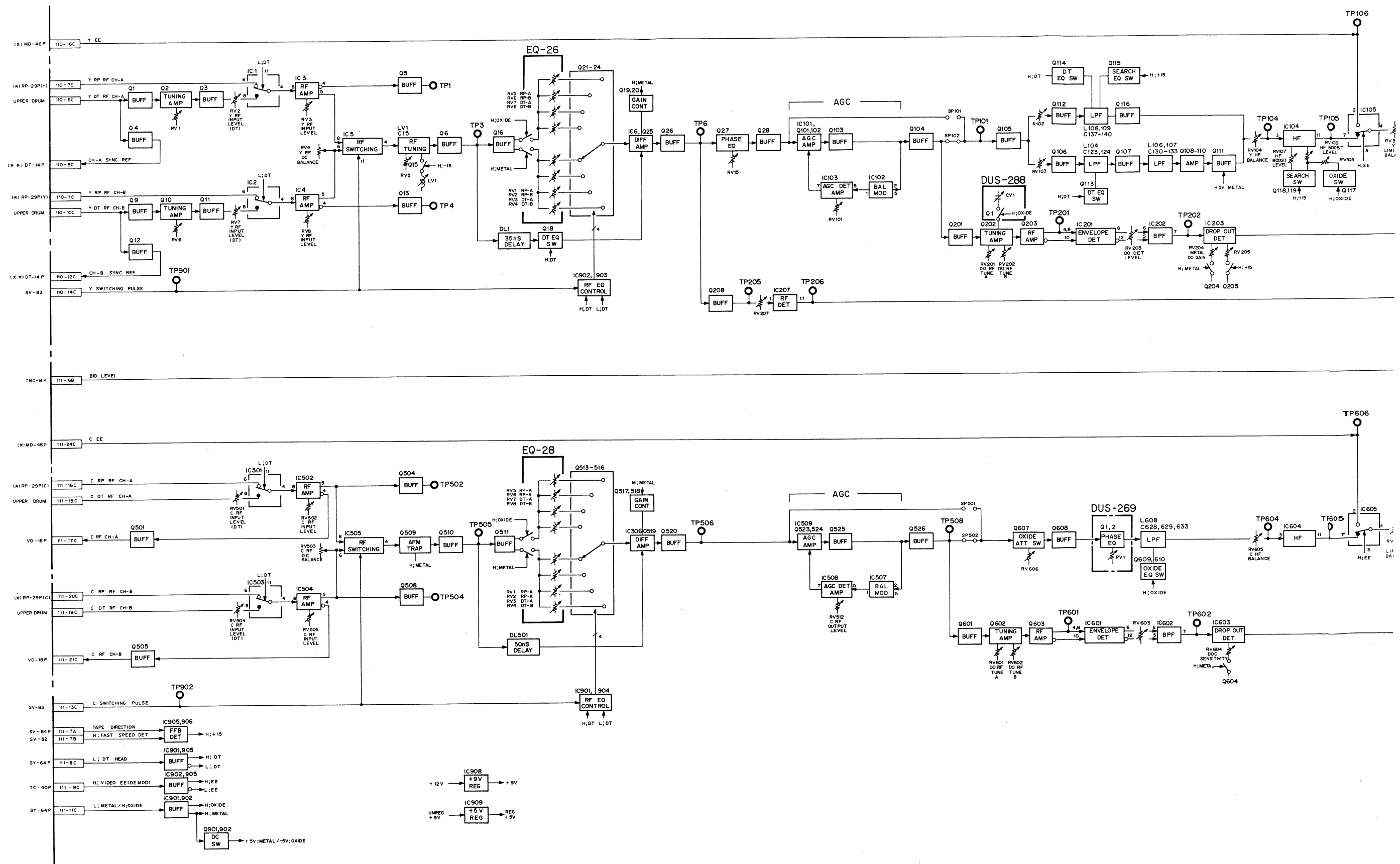
15-13 (b)

15-14 (b)

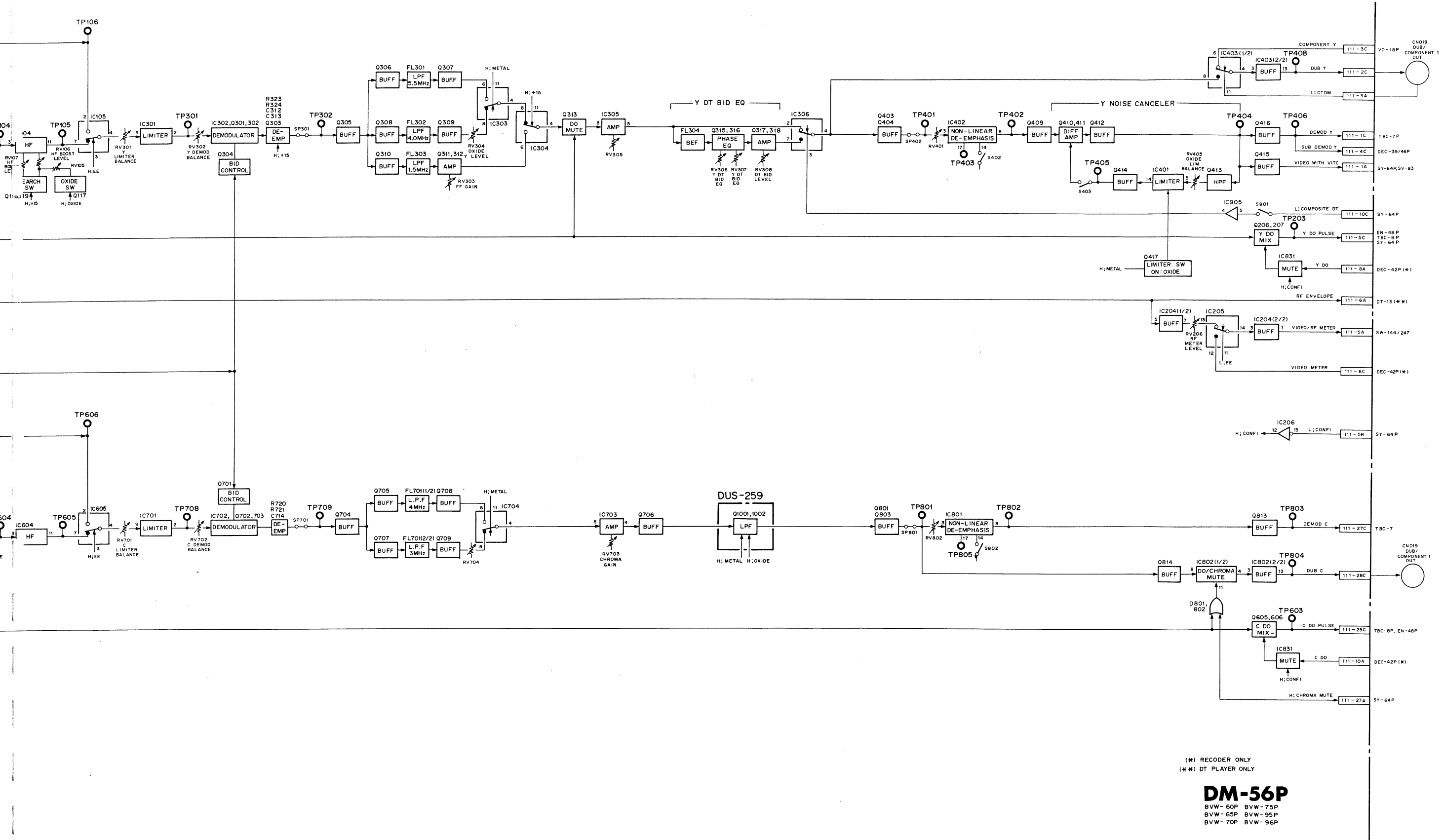


## Y/C DEMODULATOR

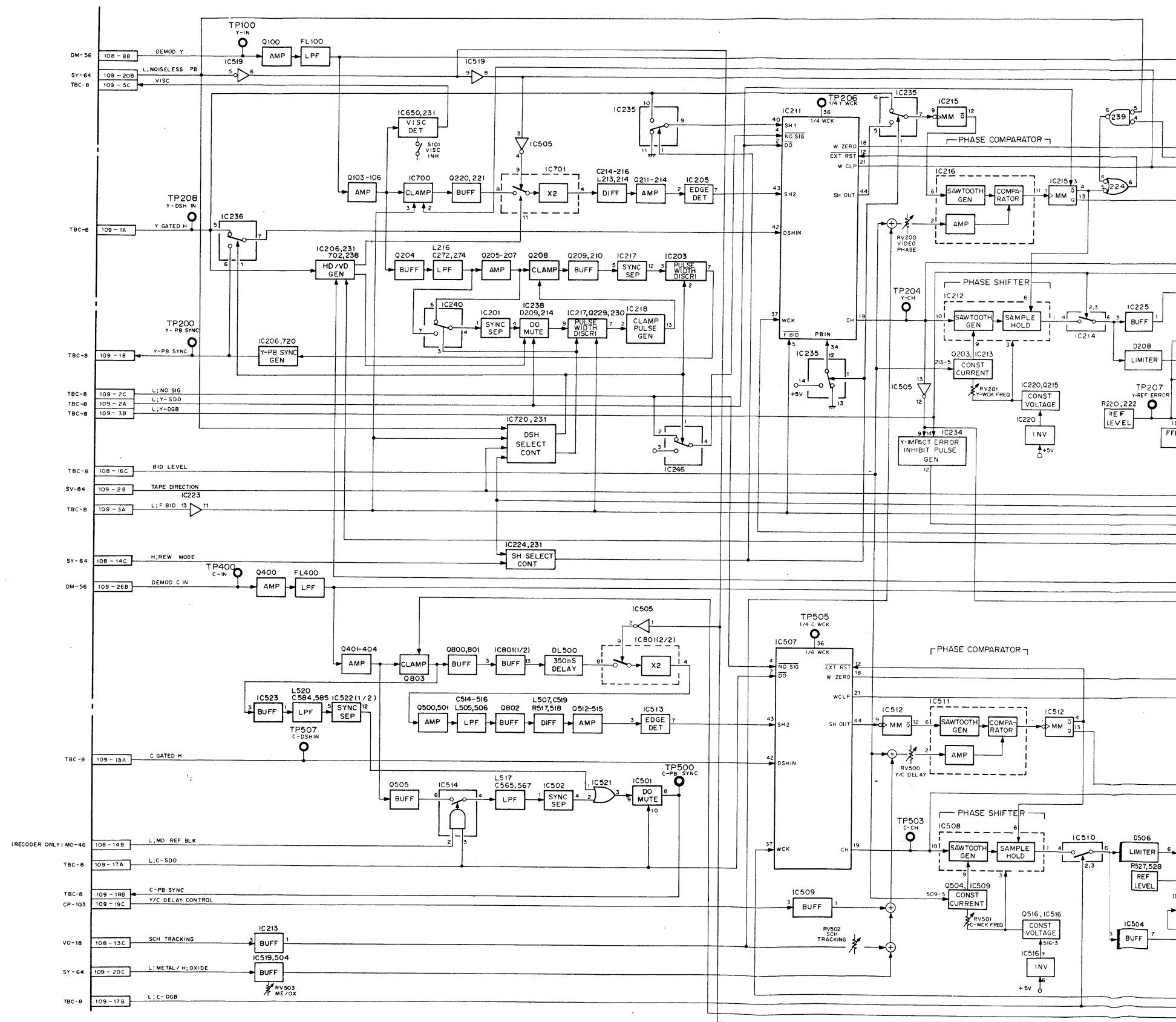
S/N 10192 and higher







S/N 10770 and higher

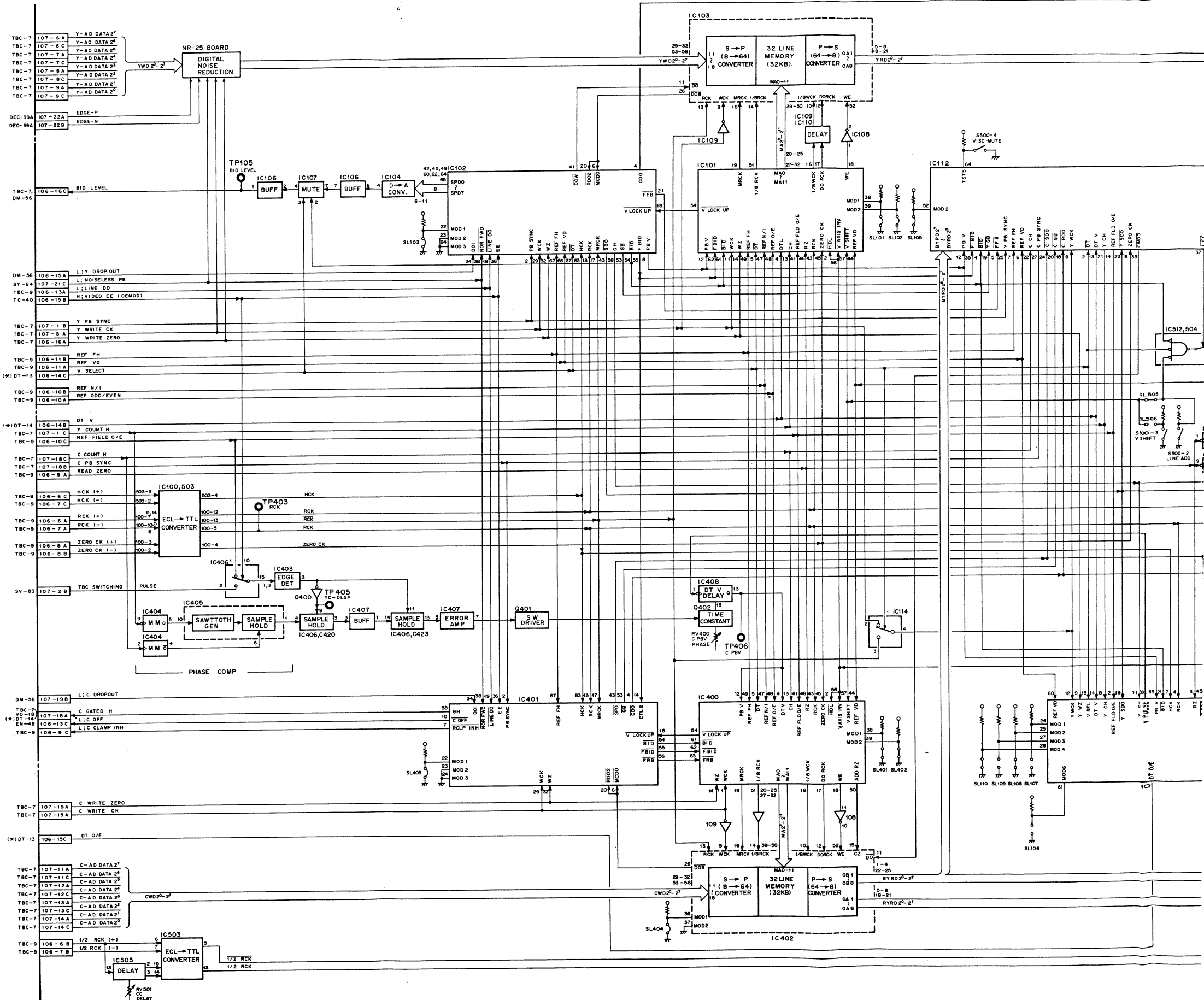




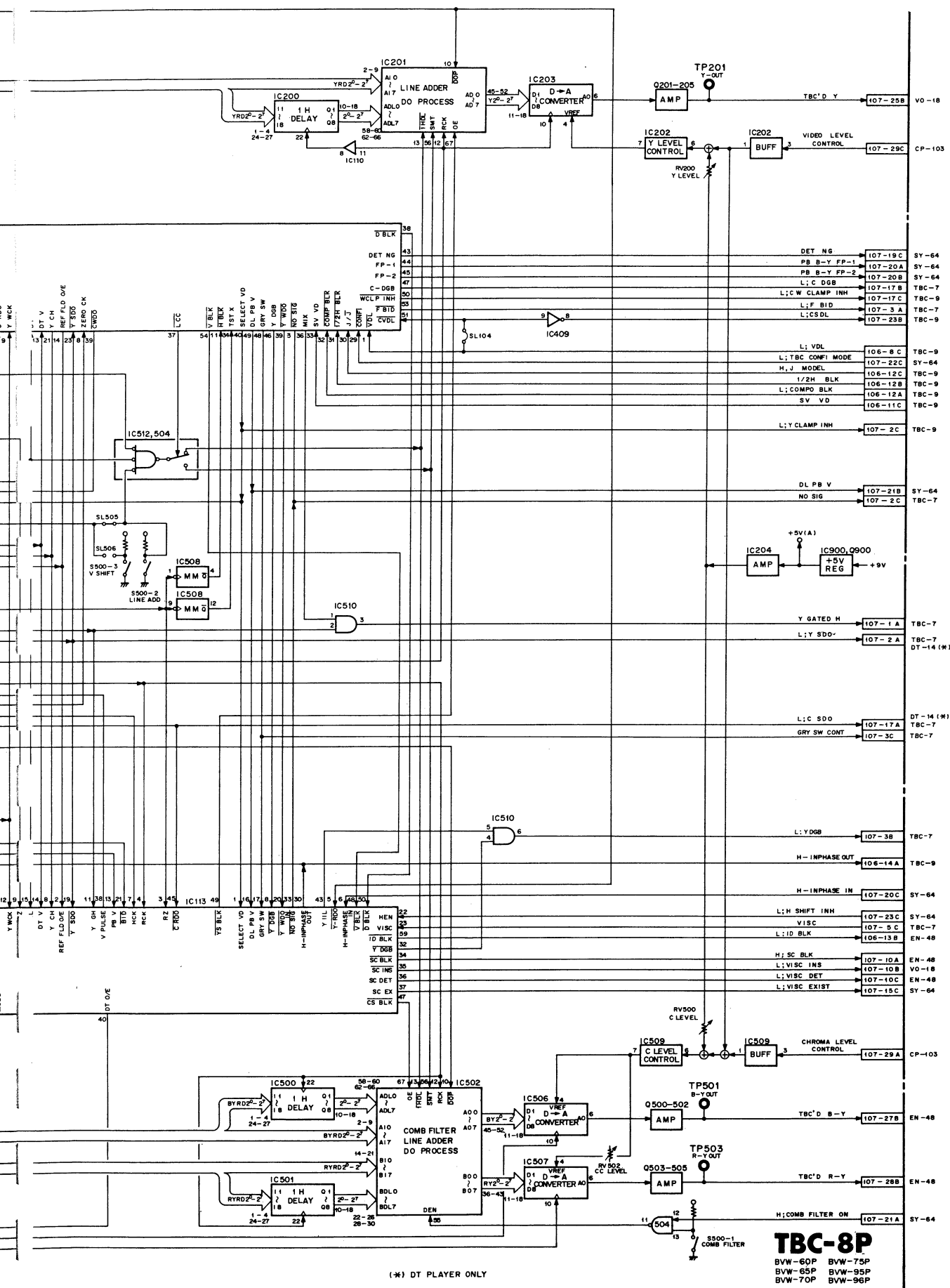
TBC	TBC
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MAIN MEMORY  
D/A CONVERTER  
Y DIGITAL NOISE REDUCTION  
EDGE DETECTOR

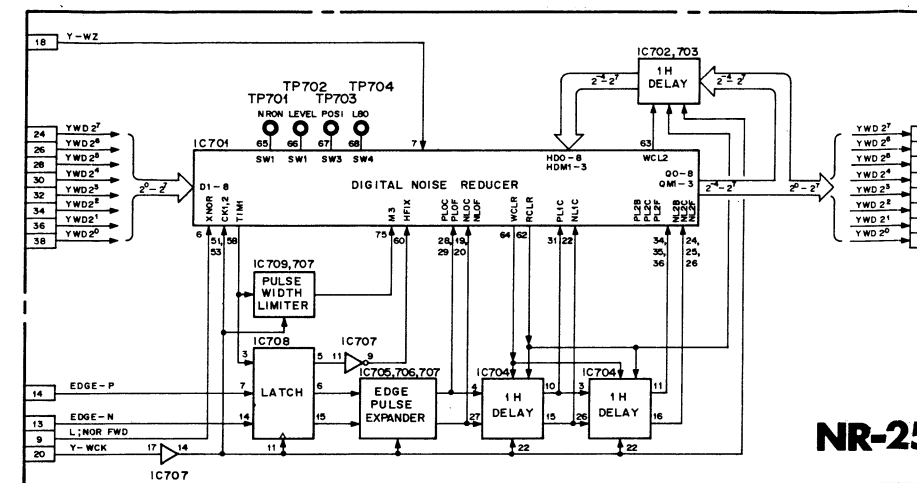
S/N 10061 through 10416



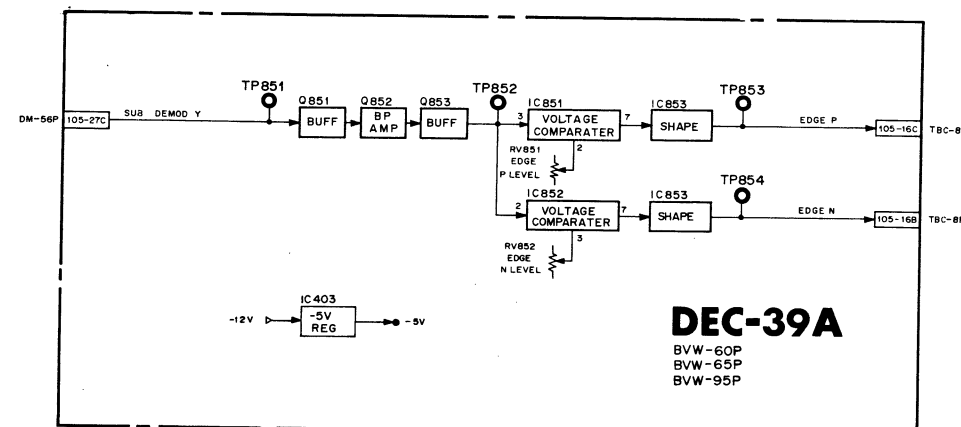
TBC      TBC



15-19(a)

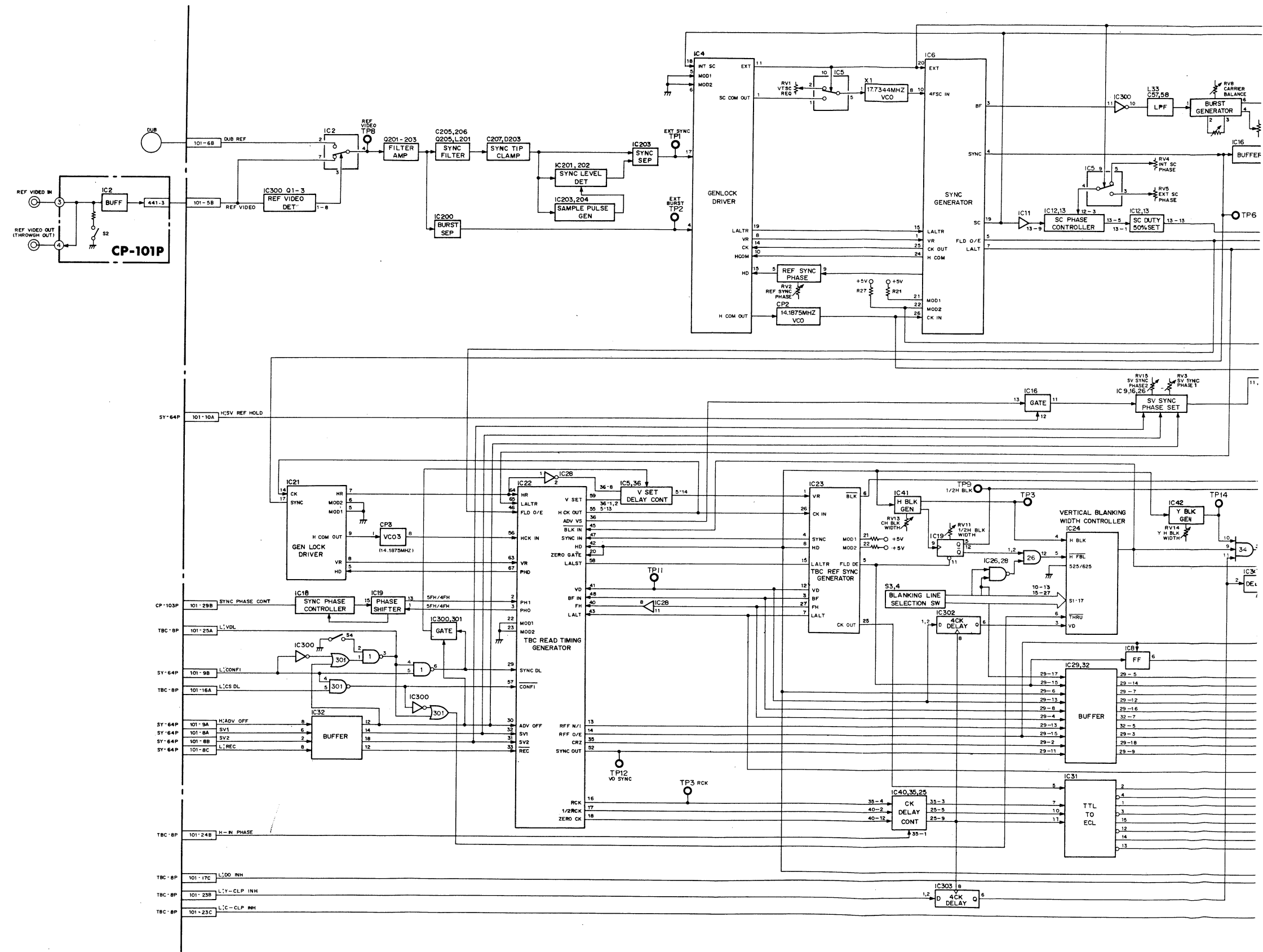


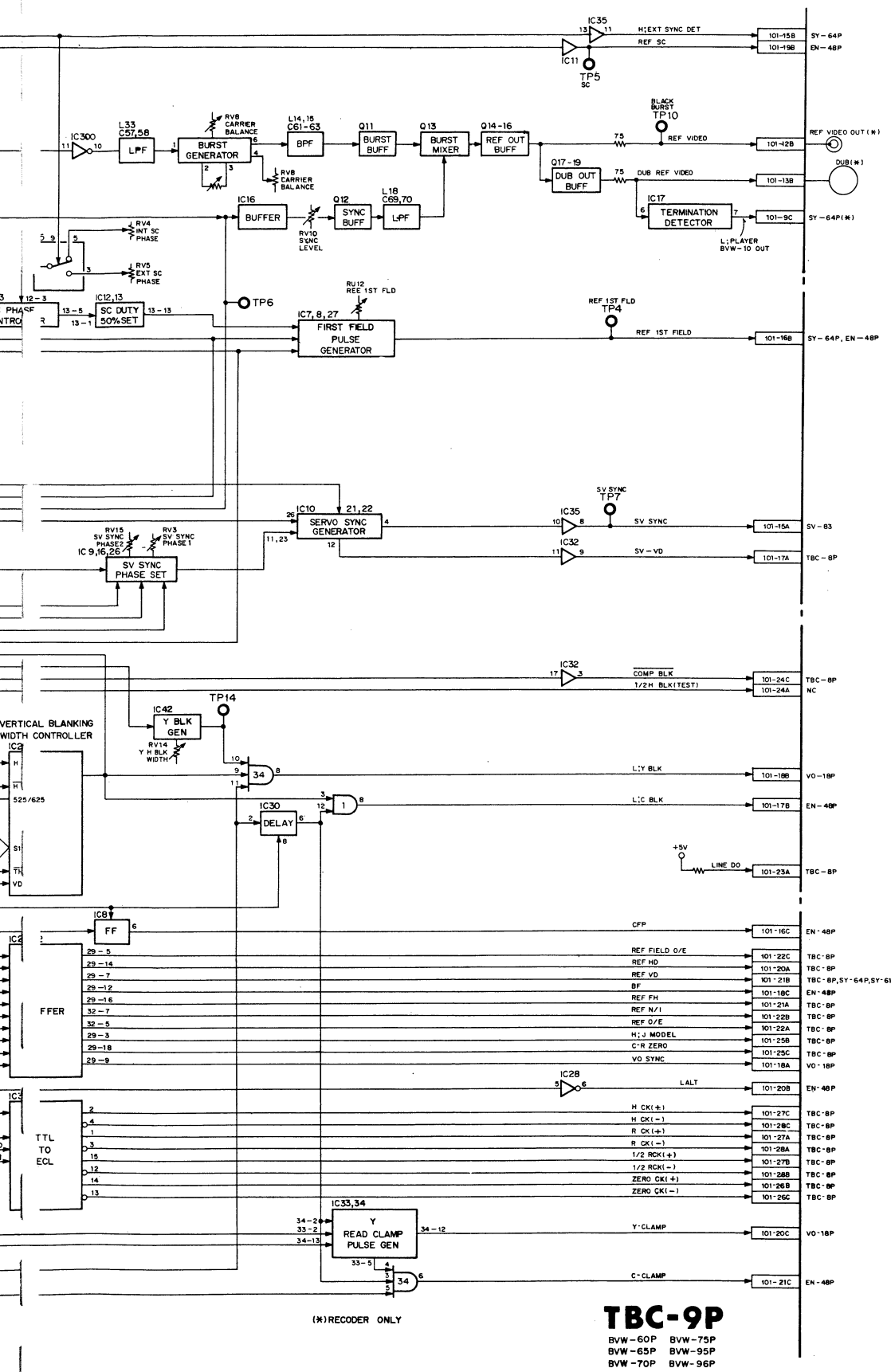
S/N 10061 through 10669
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15-20(a)

## REF SIGNAL/TIMING GENERATOR

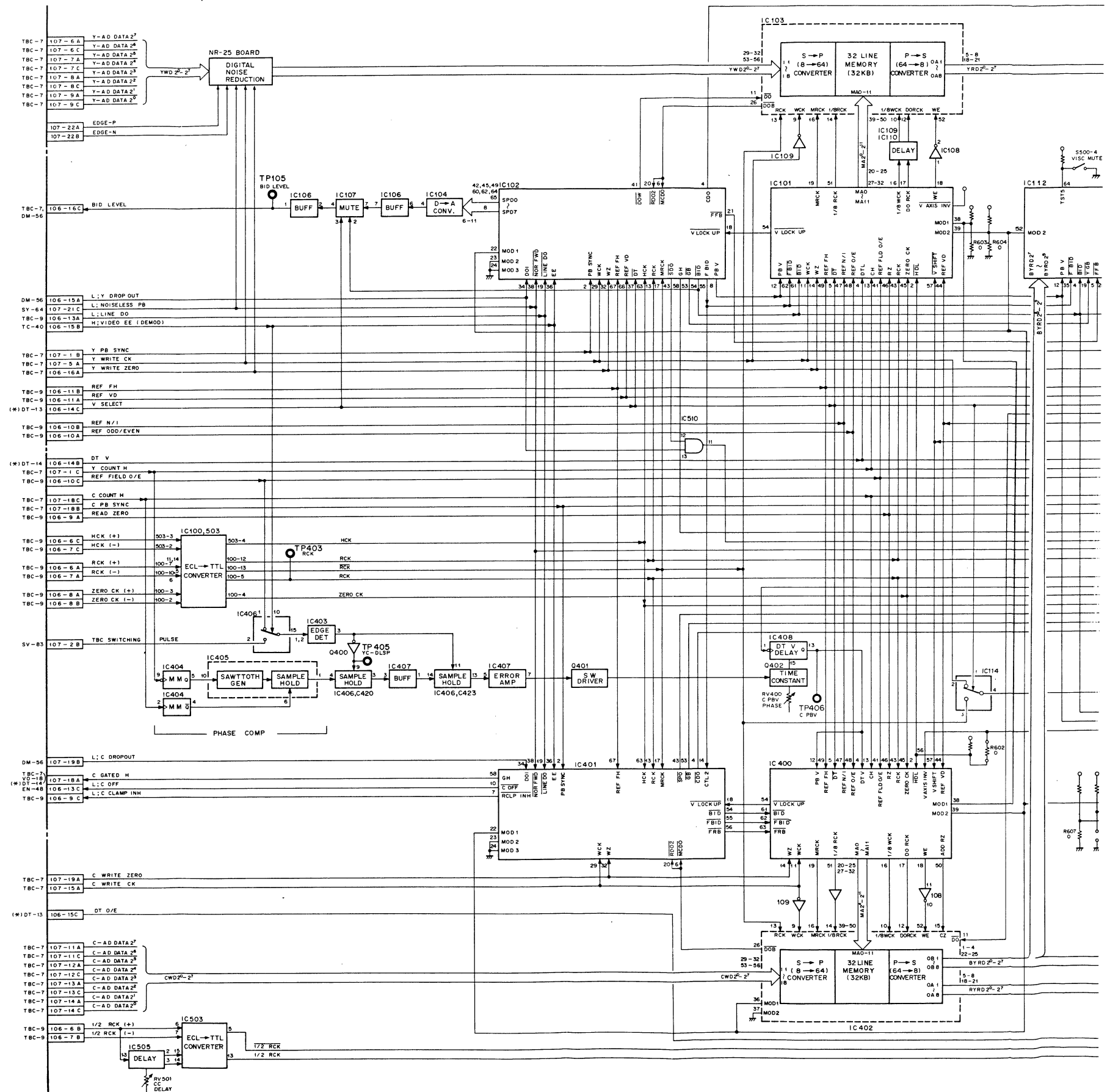




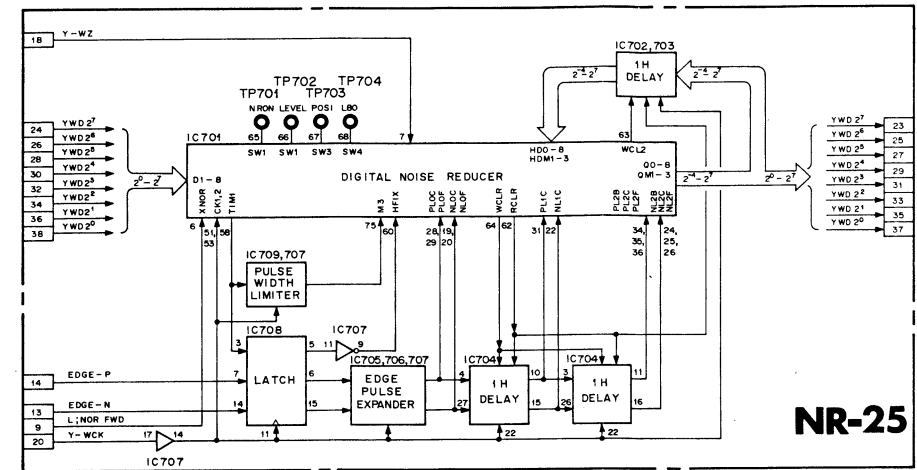
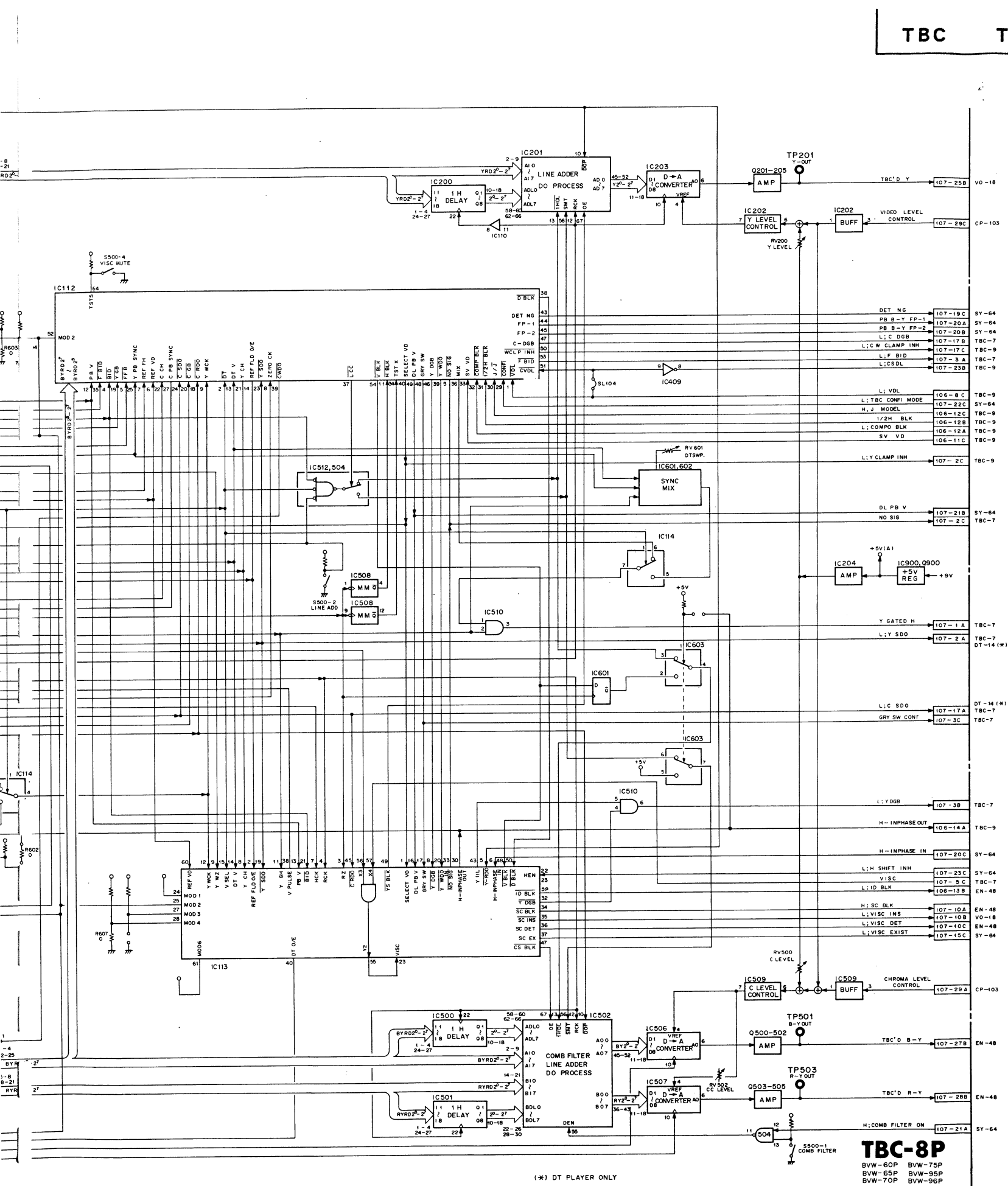
TBC      TBC

MAIN MEMORY  
D/A CONVERTER  
Y DIGITAL NOISE REDUCTION

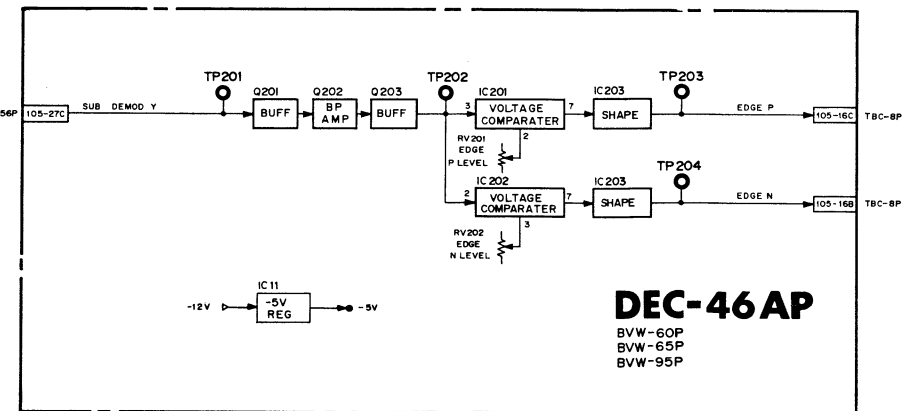
S/N 10417 through 10769



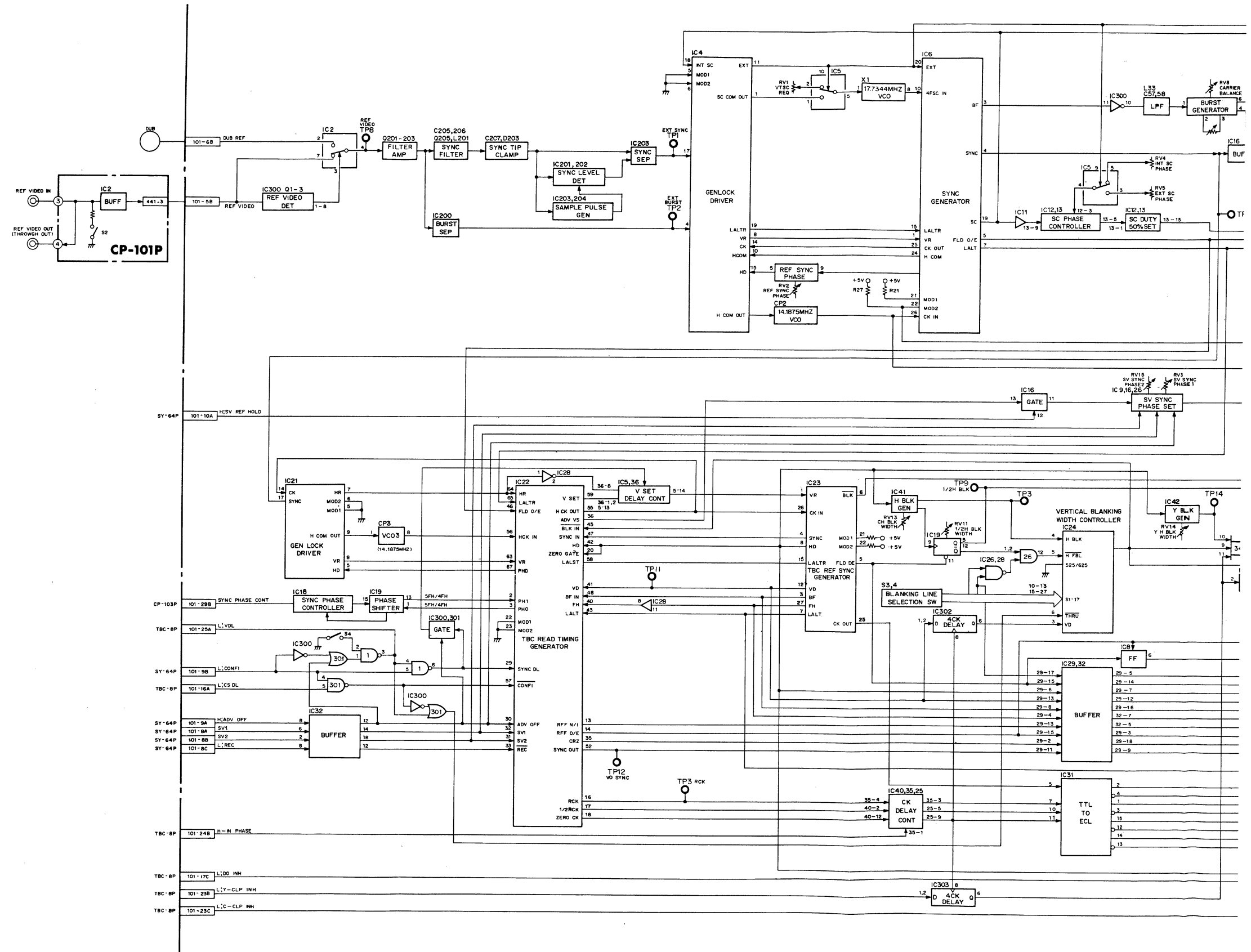


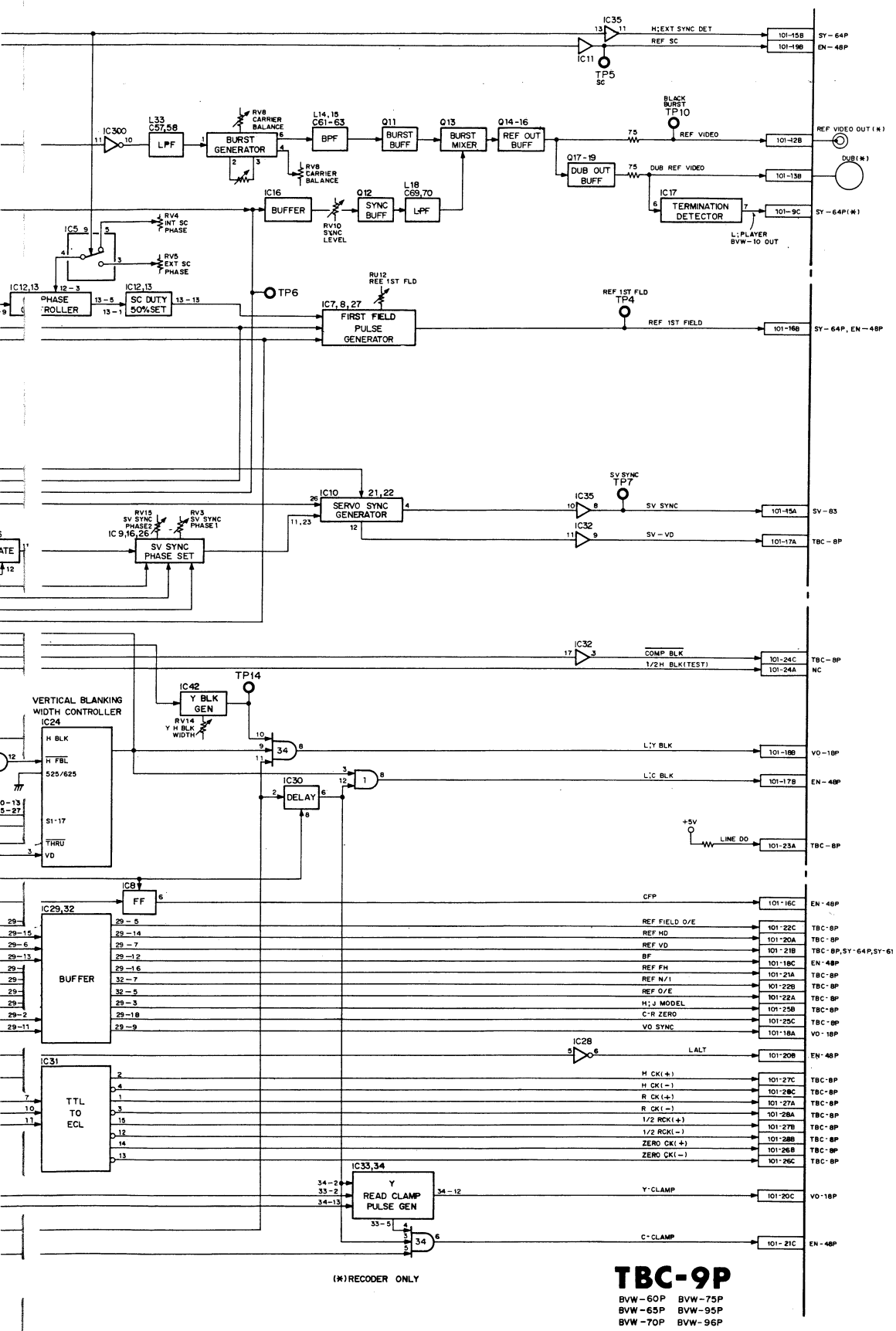


S/N 10670 and higher



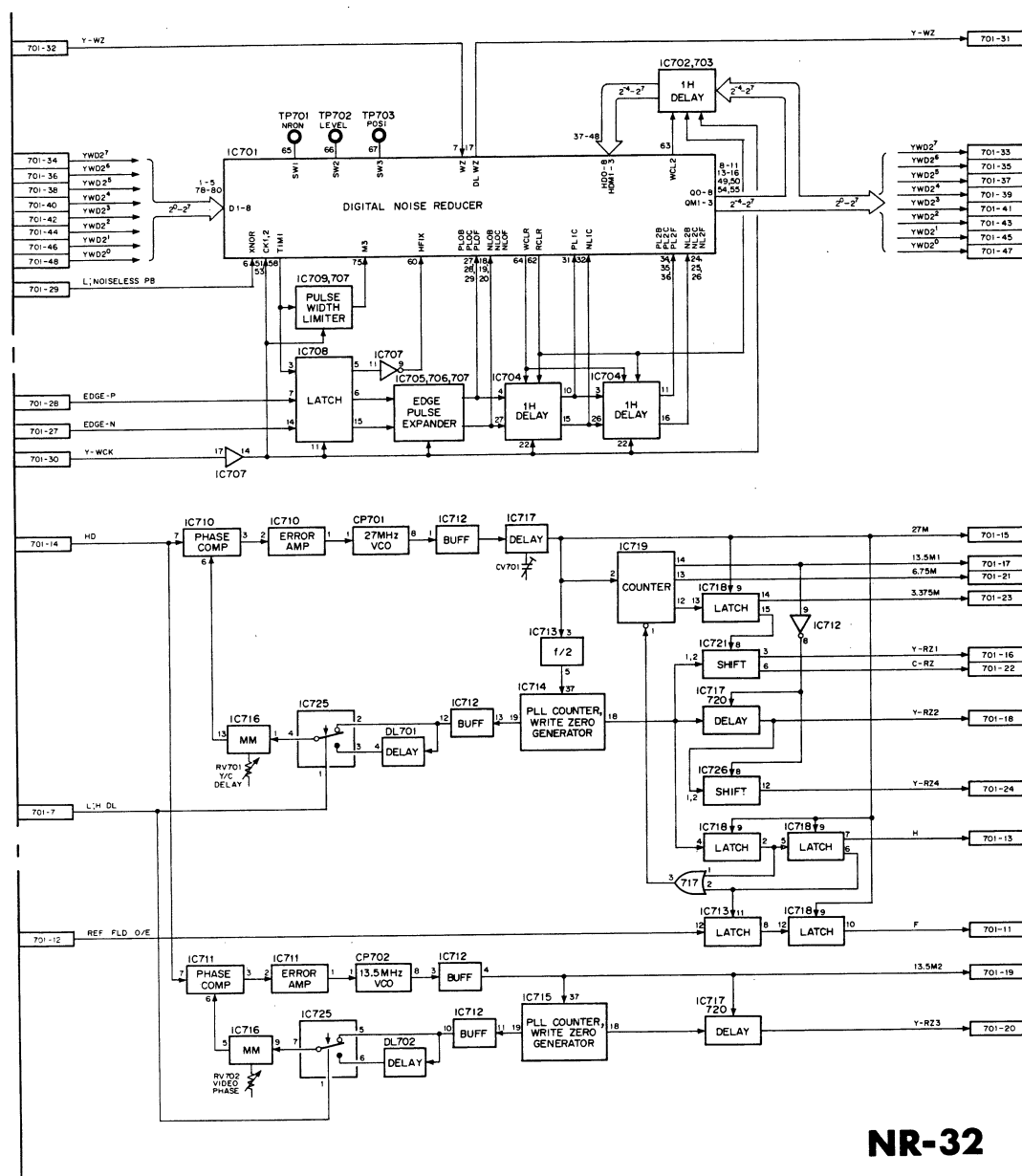
## REF SIGNAL/TIMING GENERATOR



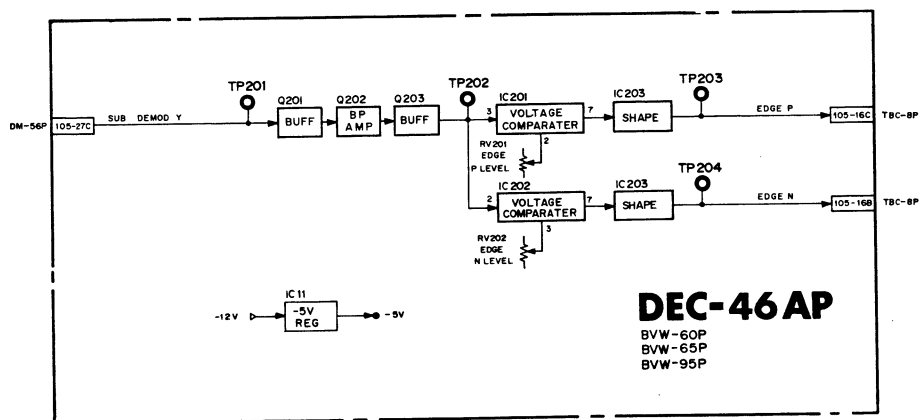


MAIN MEMORY  
D/A CONVERTER  
Y DIGITAL NOISE REDUCTION

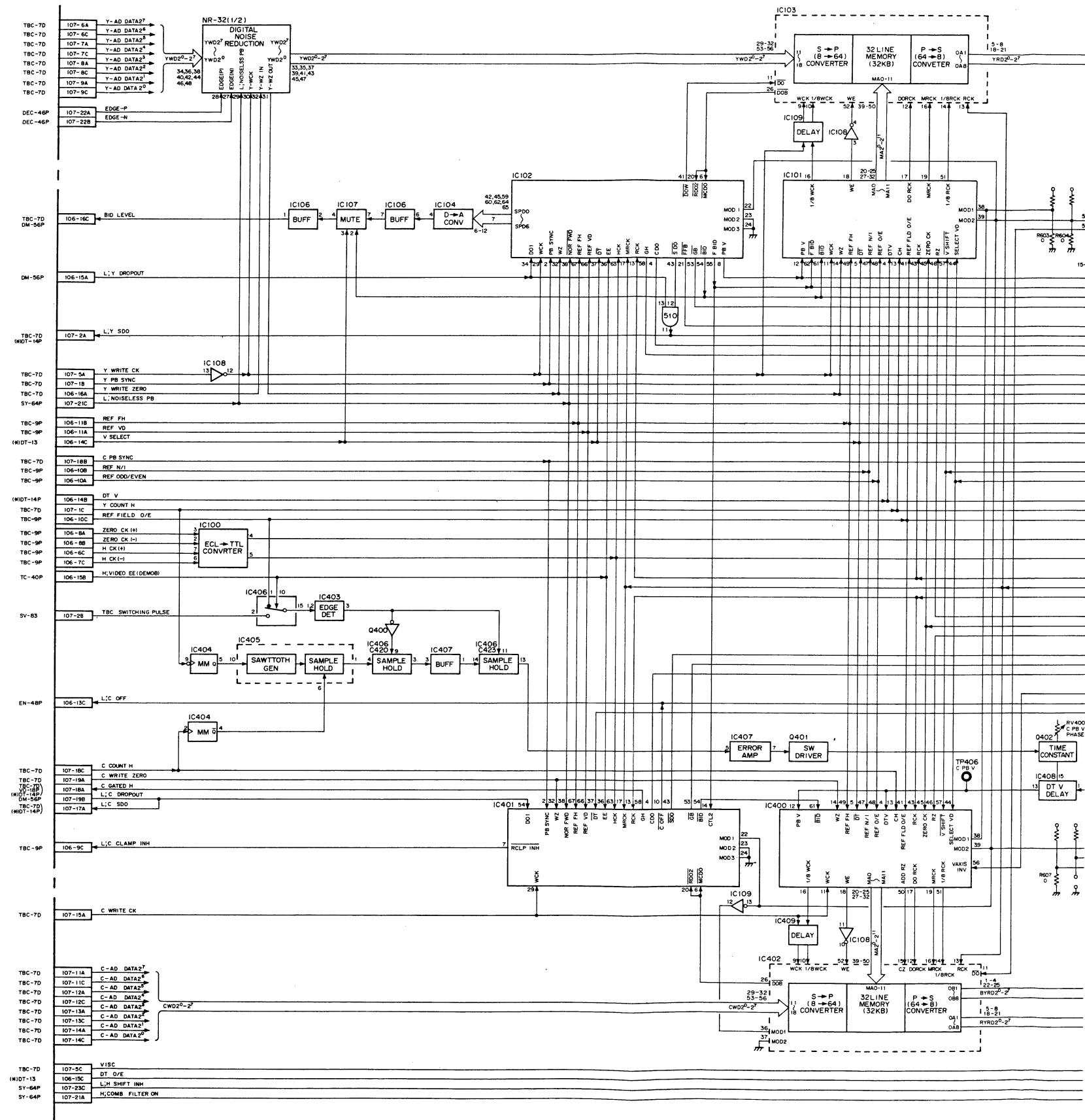
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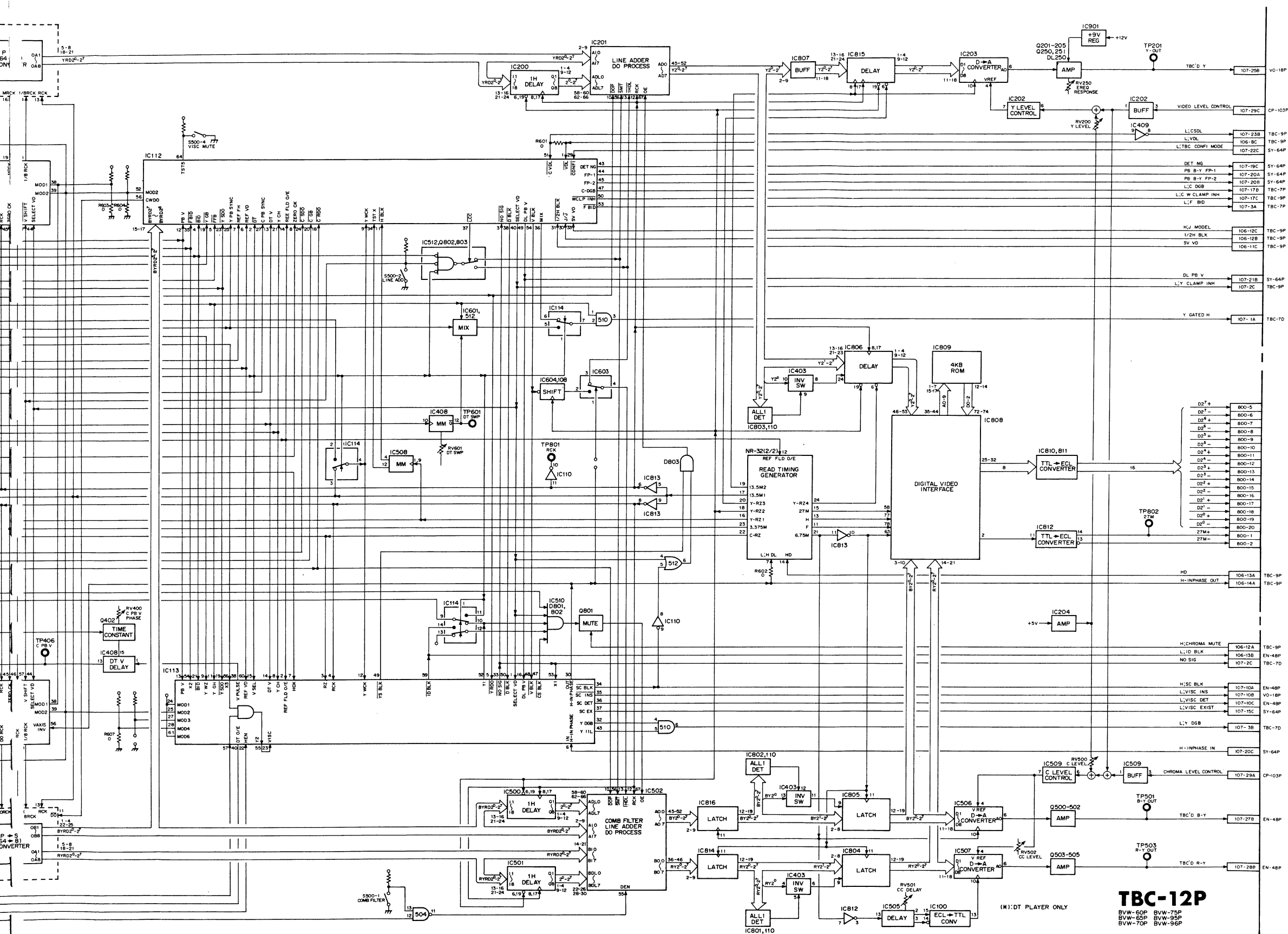
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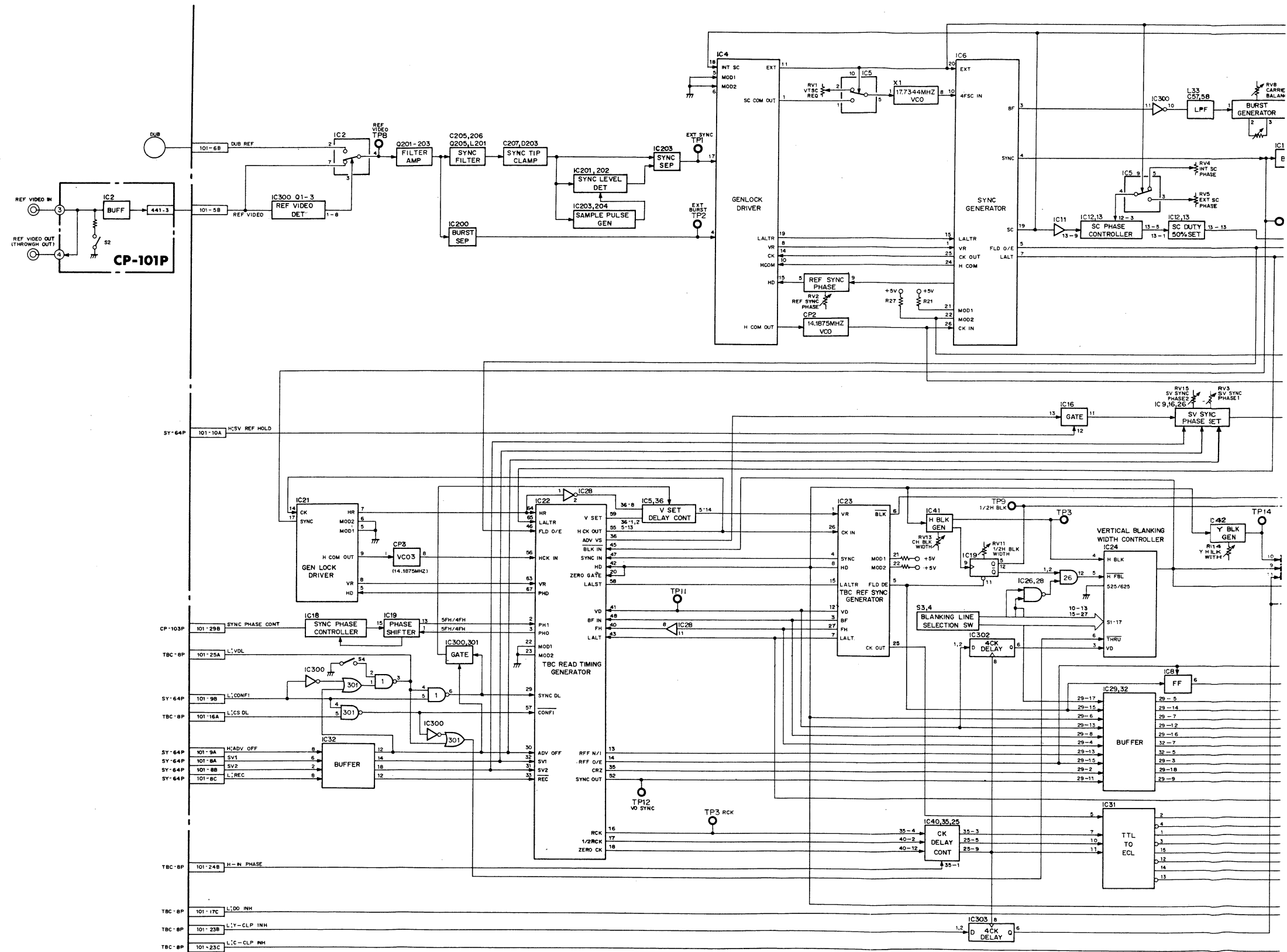
15-17 (c)

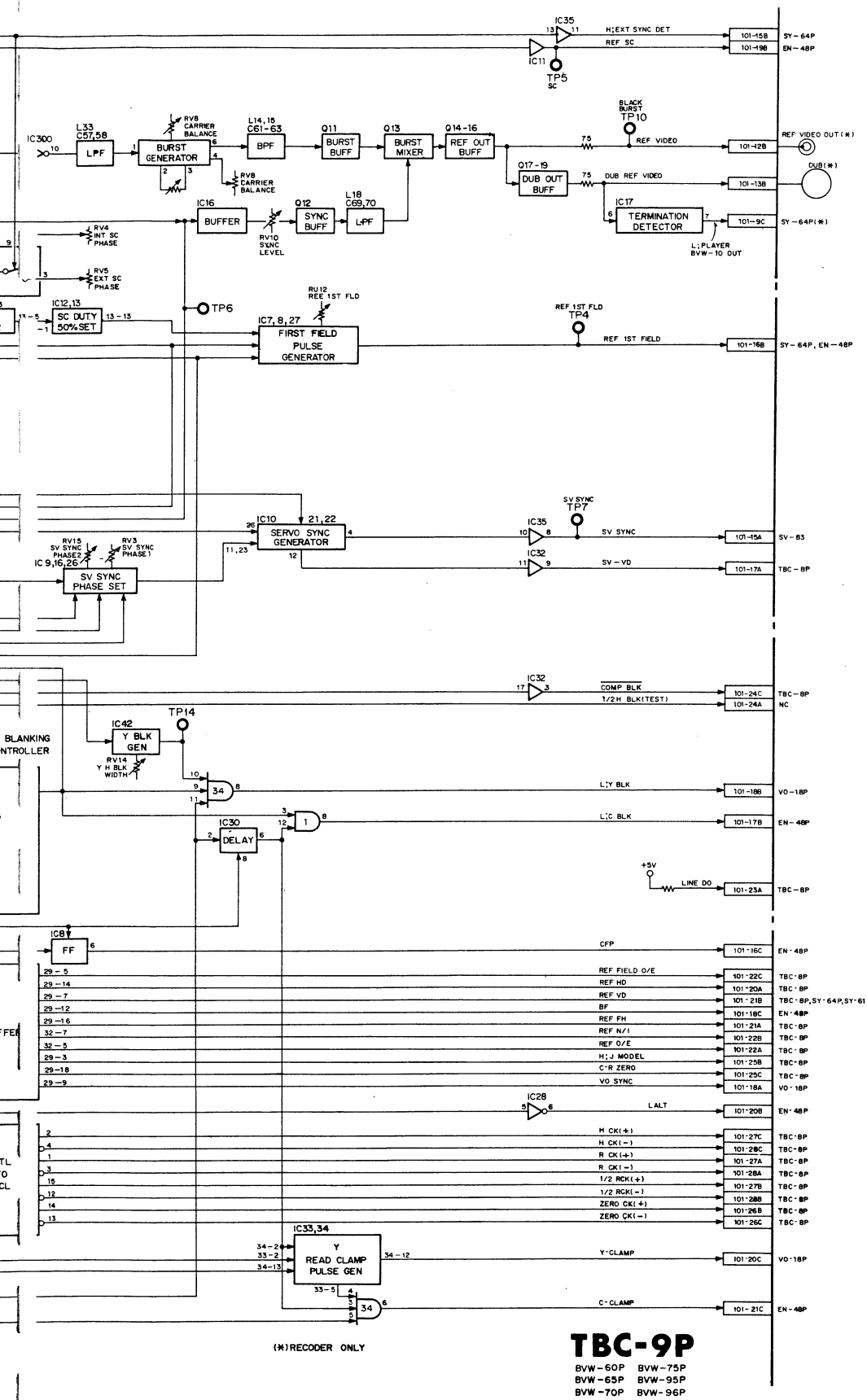


15-18 (c)

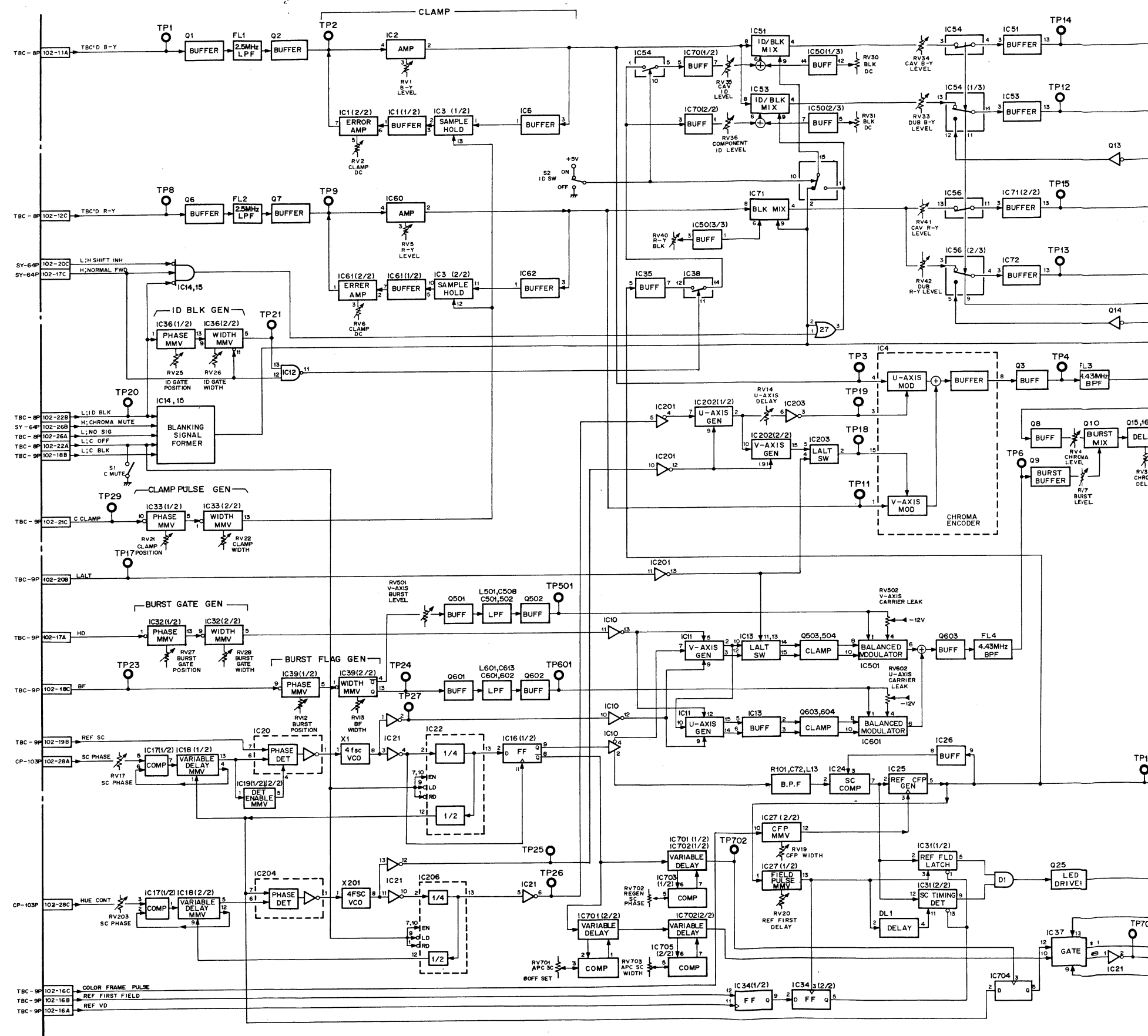


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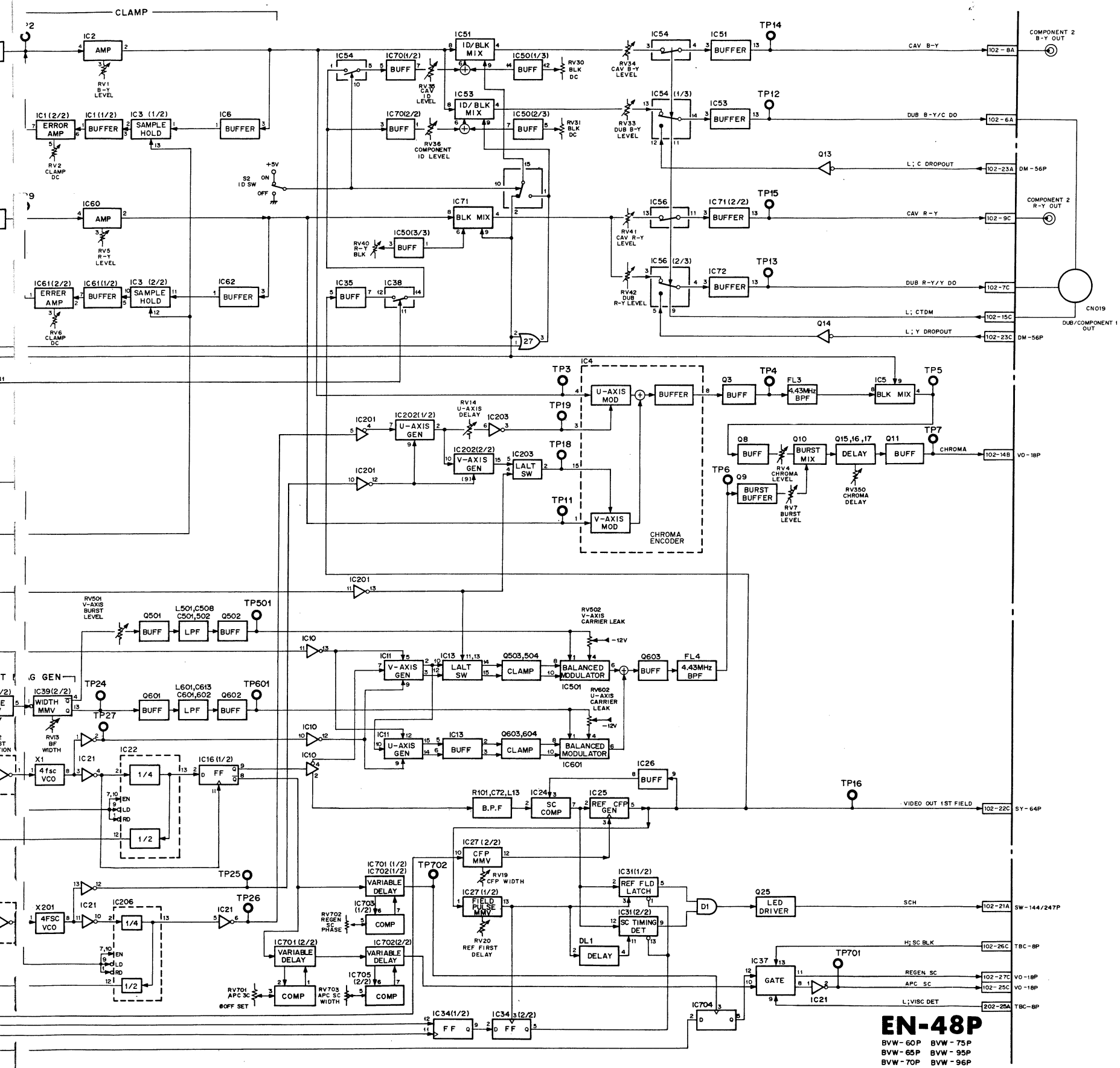




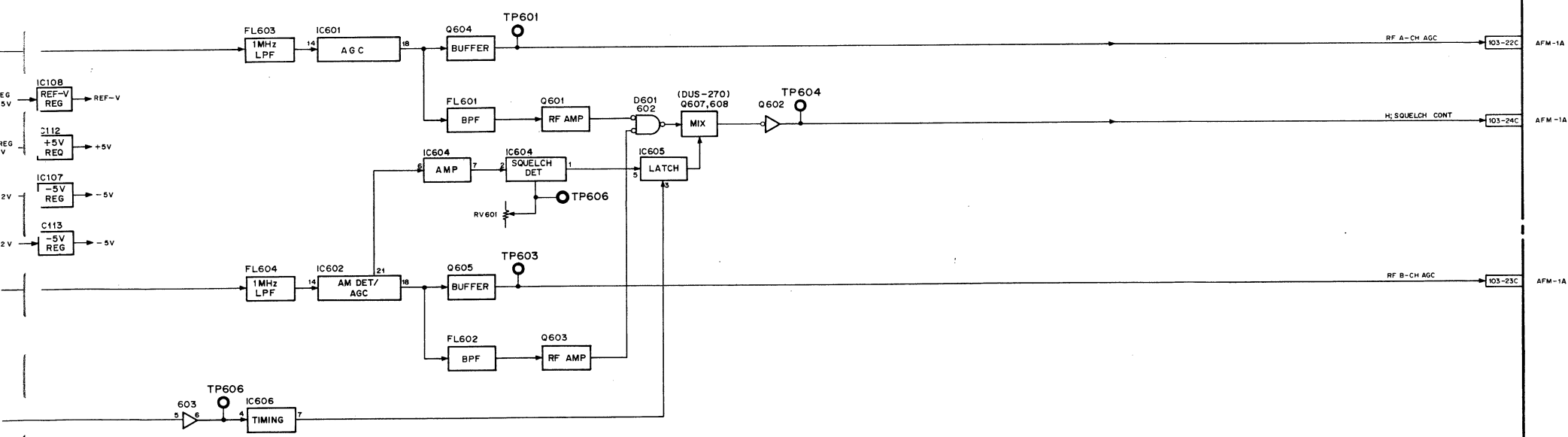
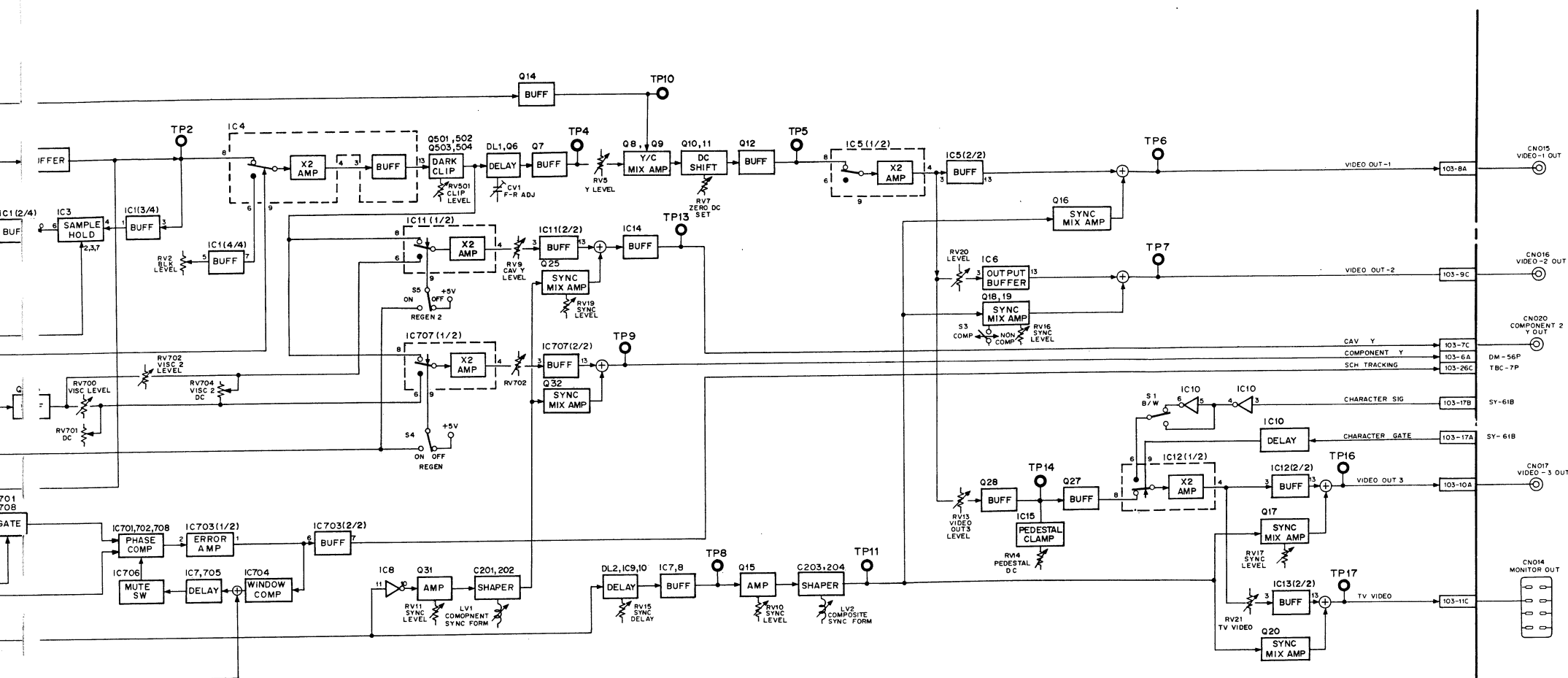
ENCODER      ENCODER







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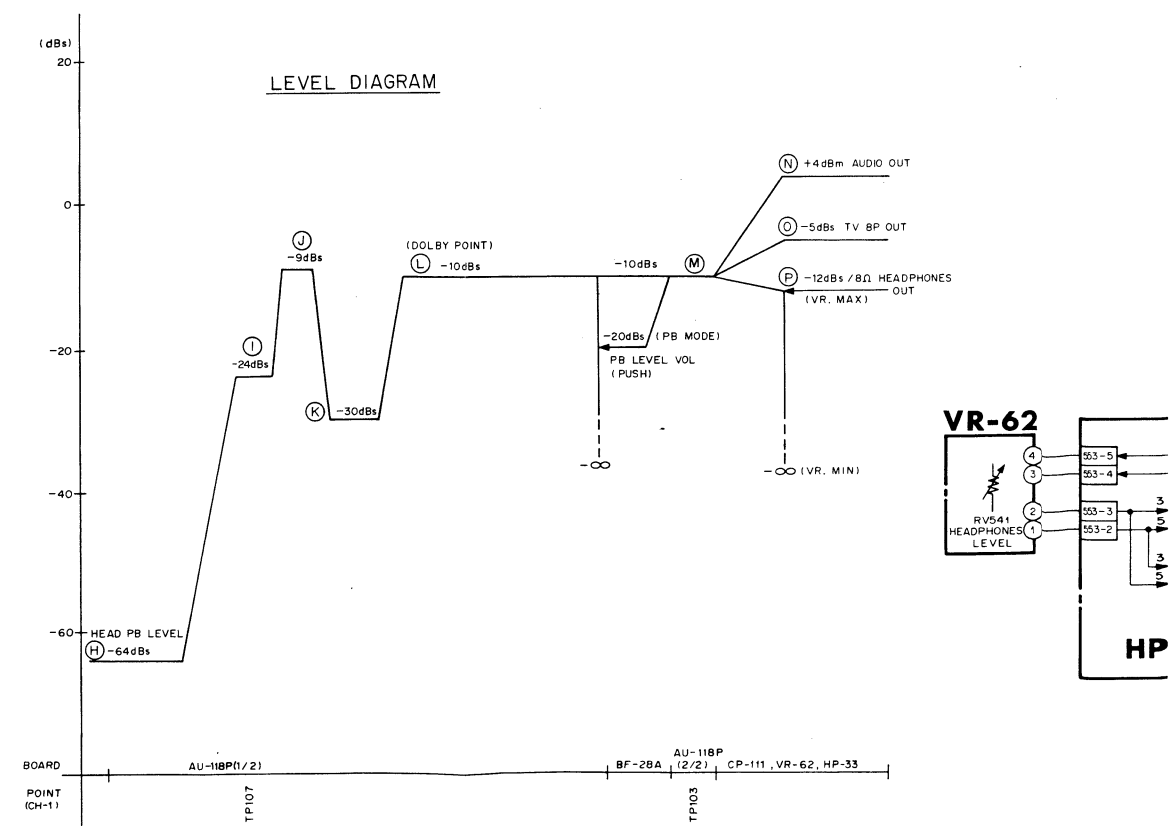
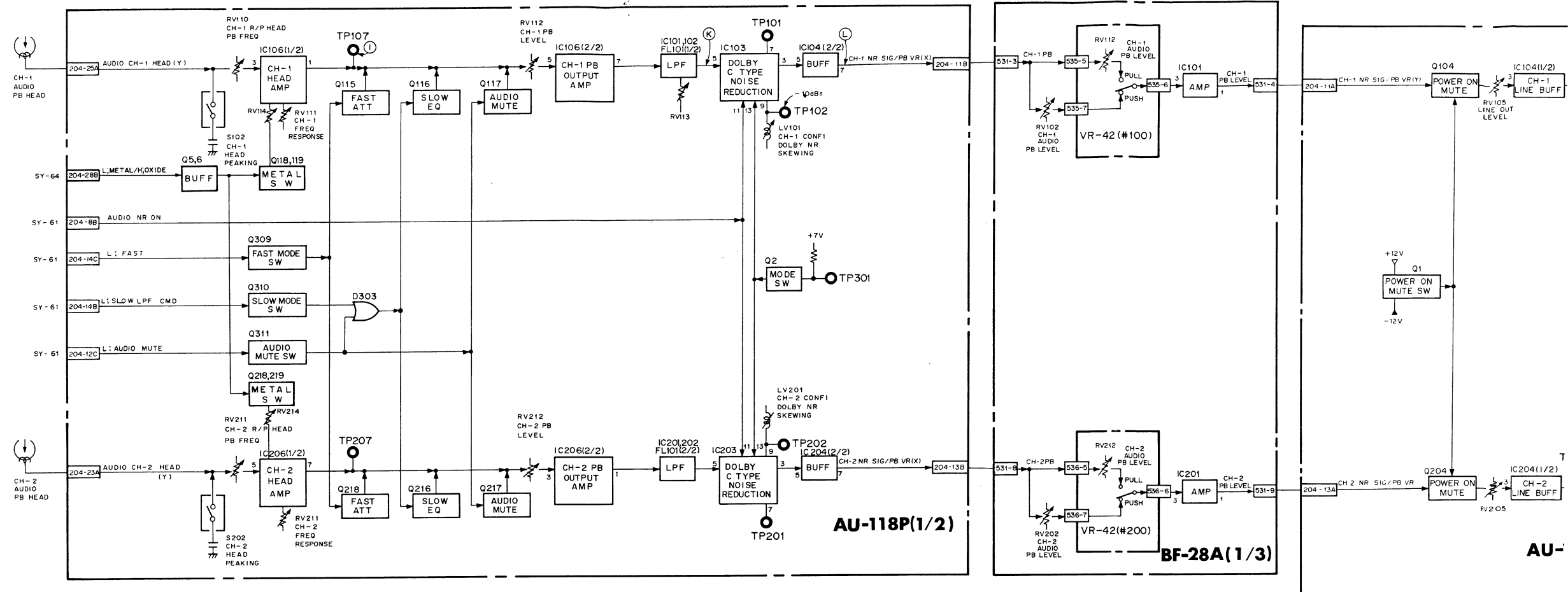


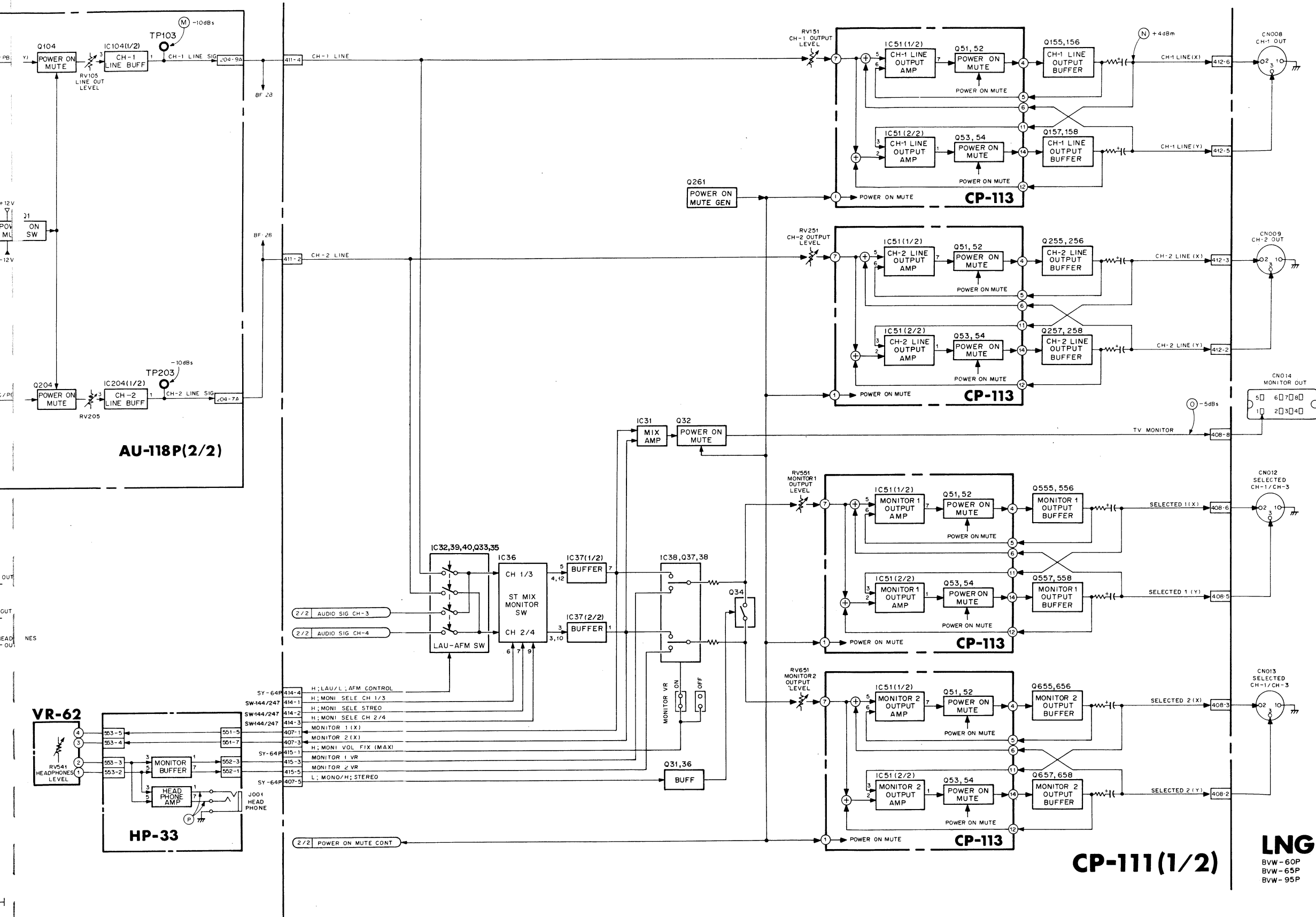
VO-18AP

BVW - 60P  
BVW - 65P  
BVW - 95P

## LNG AUDIO

Up to S/N 12854

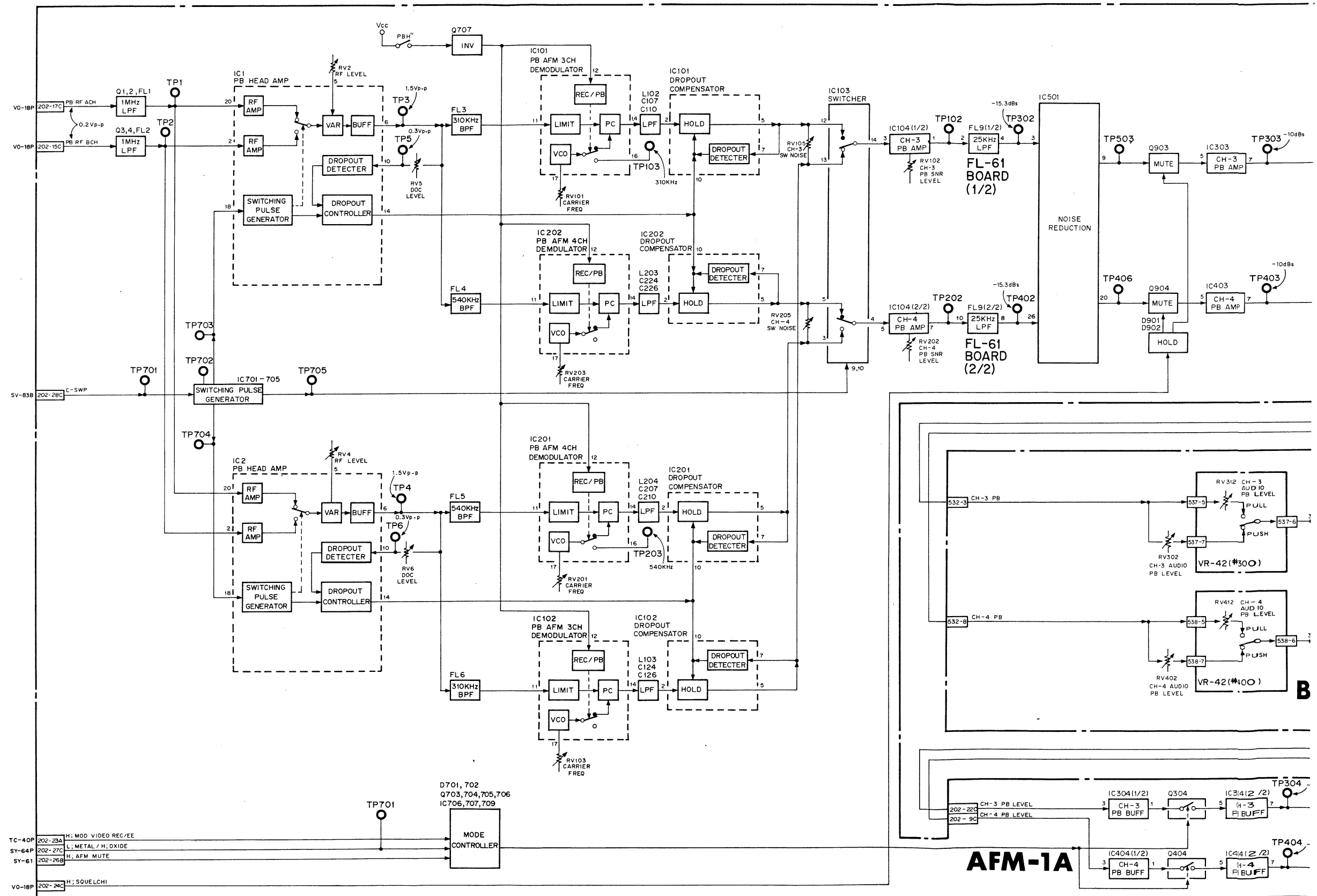


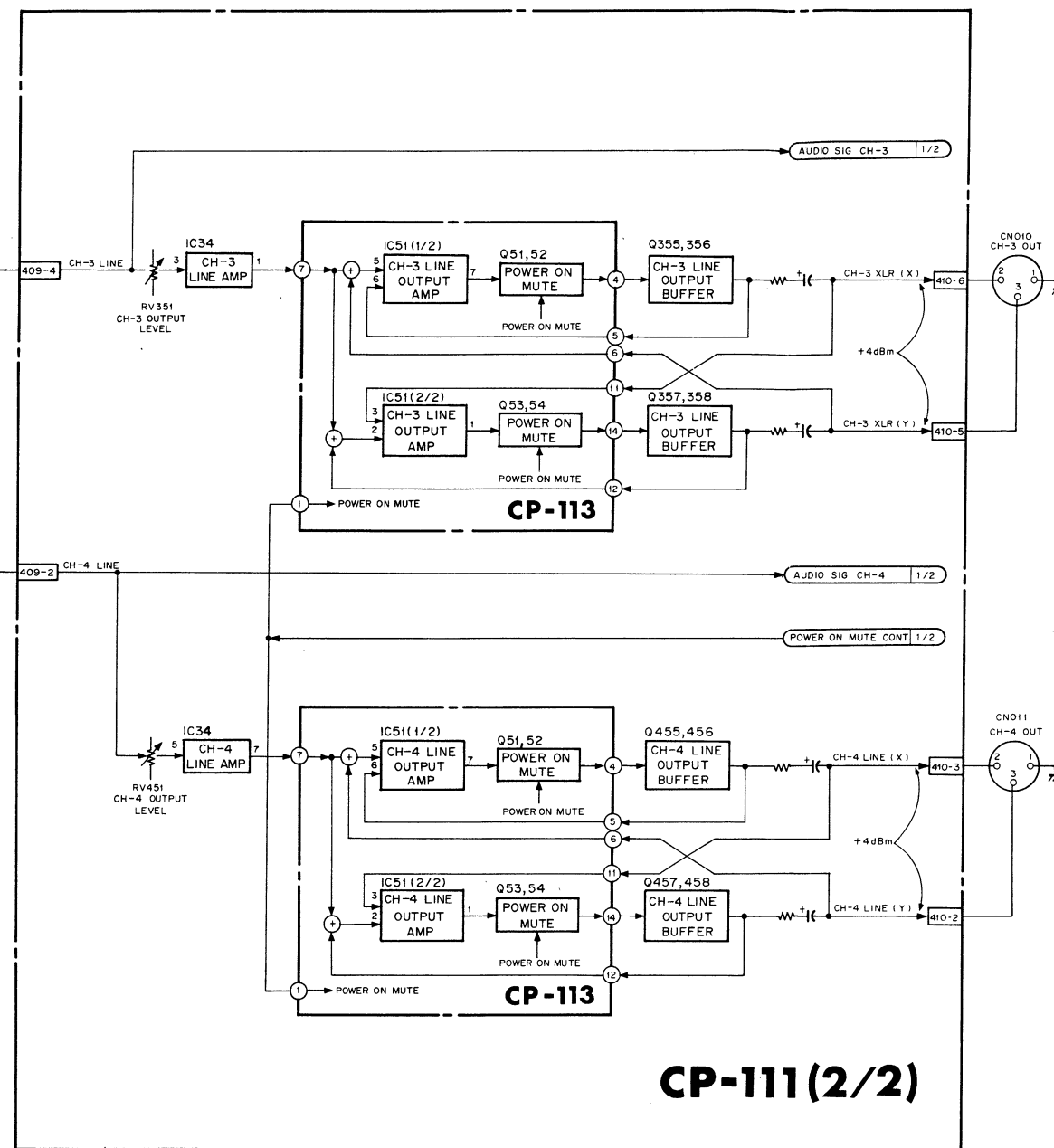
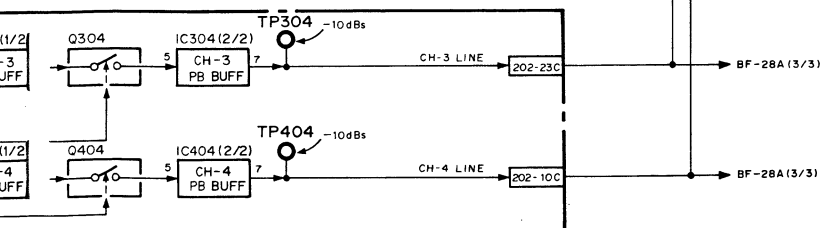
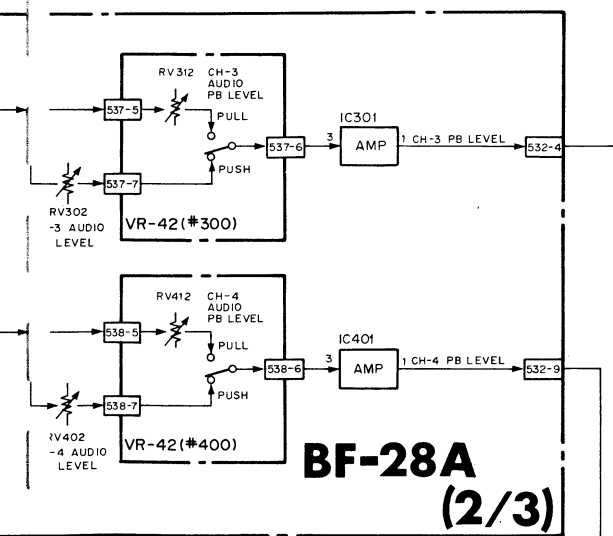
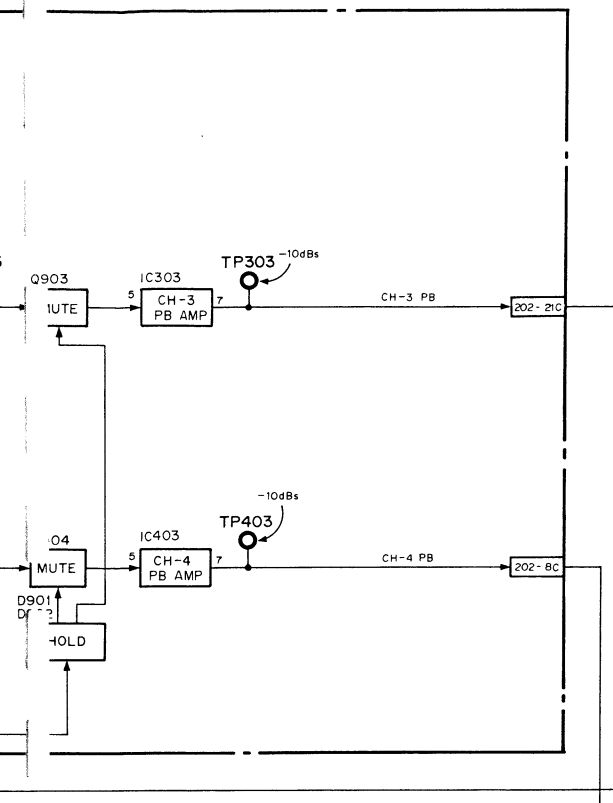


LNG AUDIO

BVW-60P  
BVW-65P  
BVW-95P

Up to S/N 12854

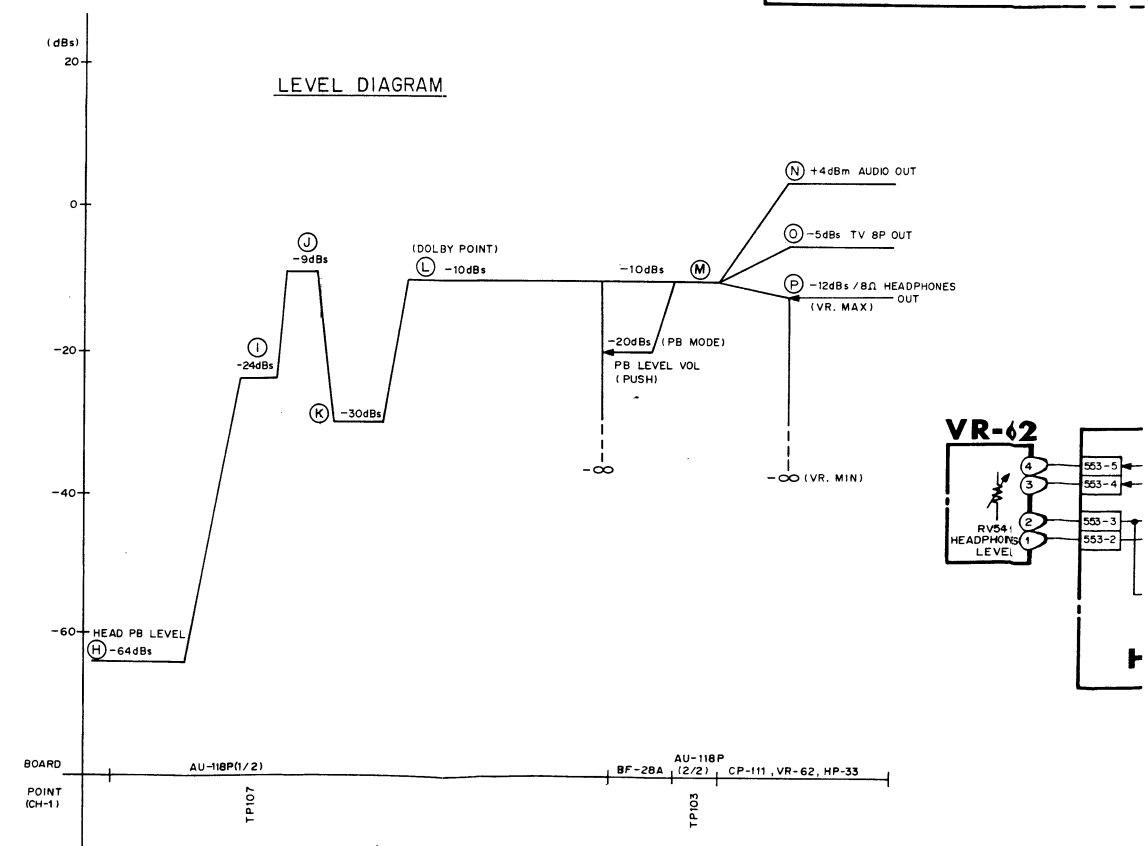
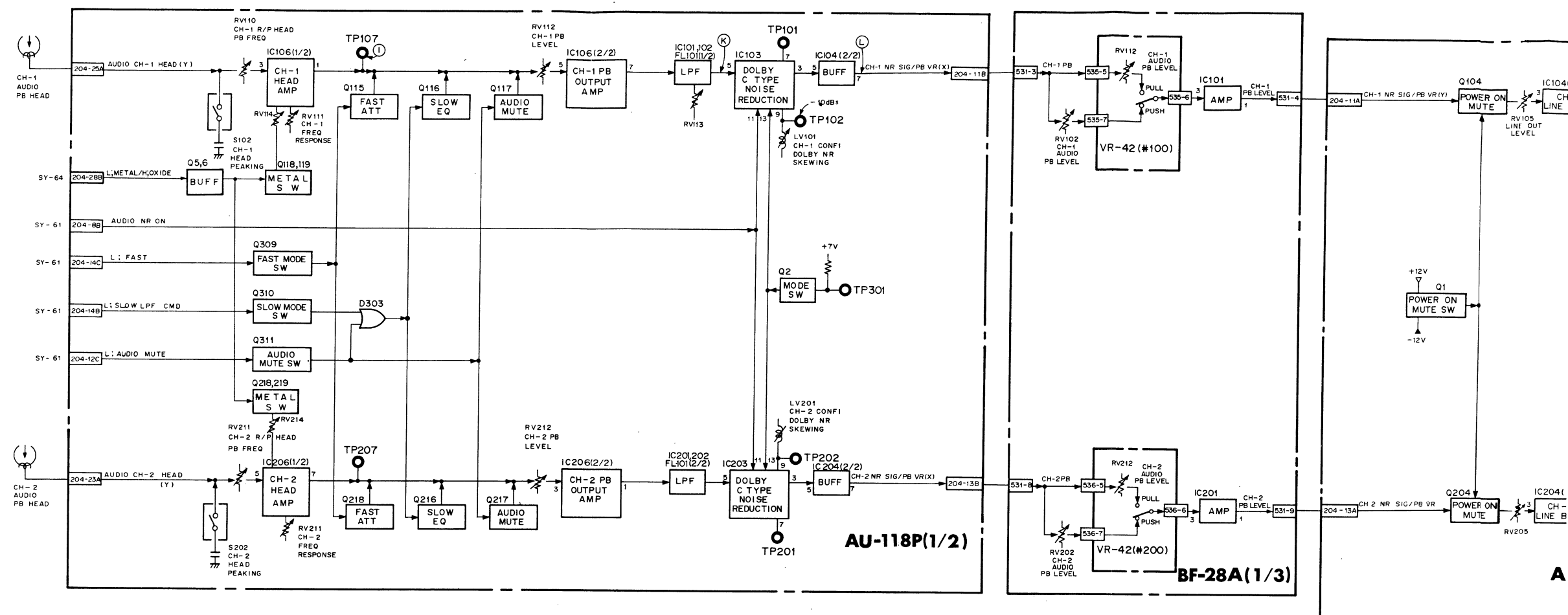




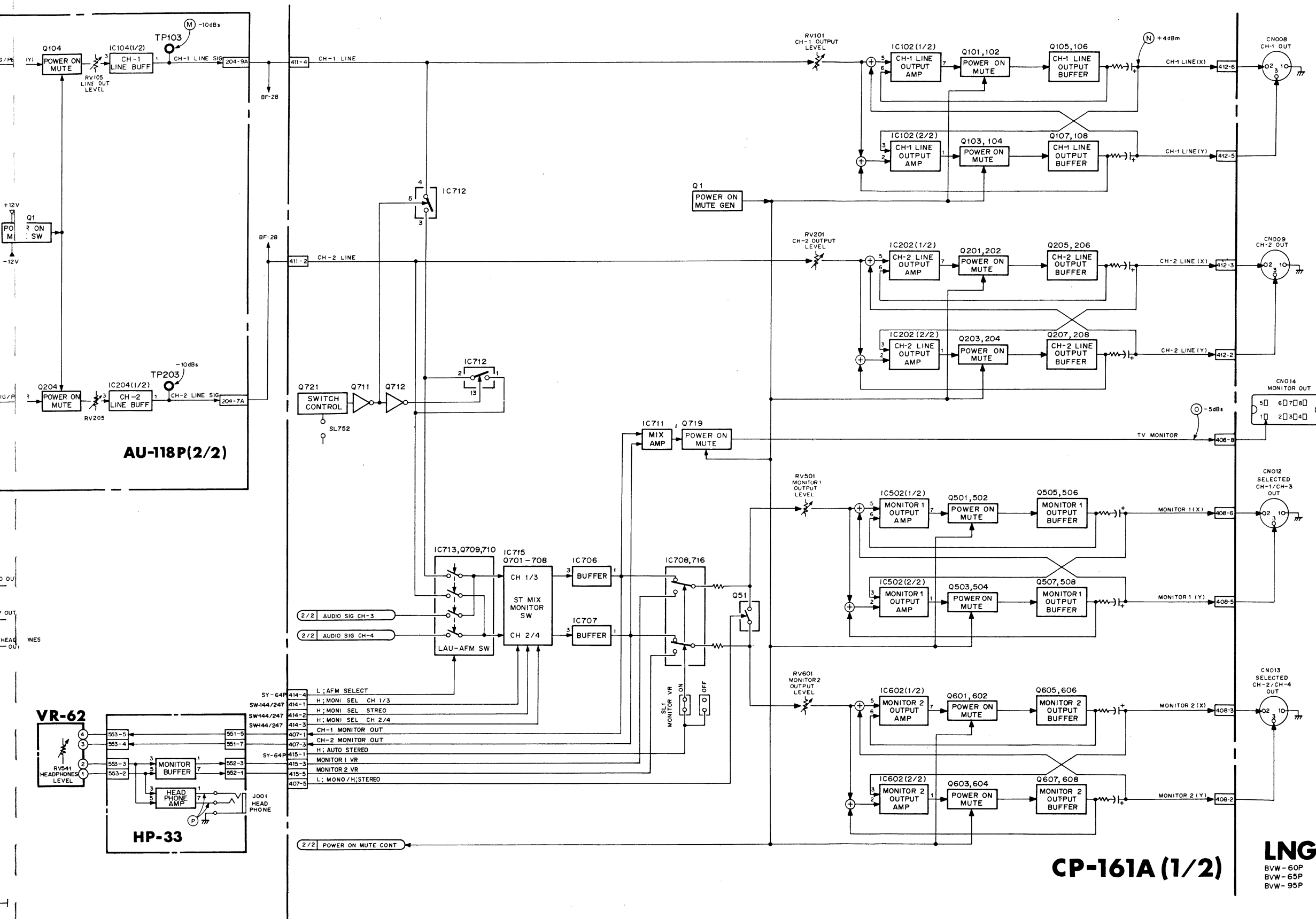
## AFM AUDIO

BVW-60P  
BVW-65P  
BVW-95P

S/N 12855 and higher





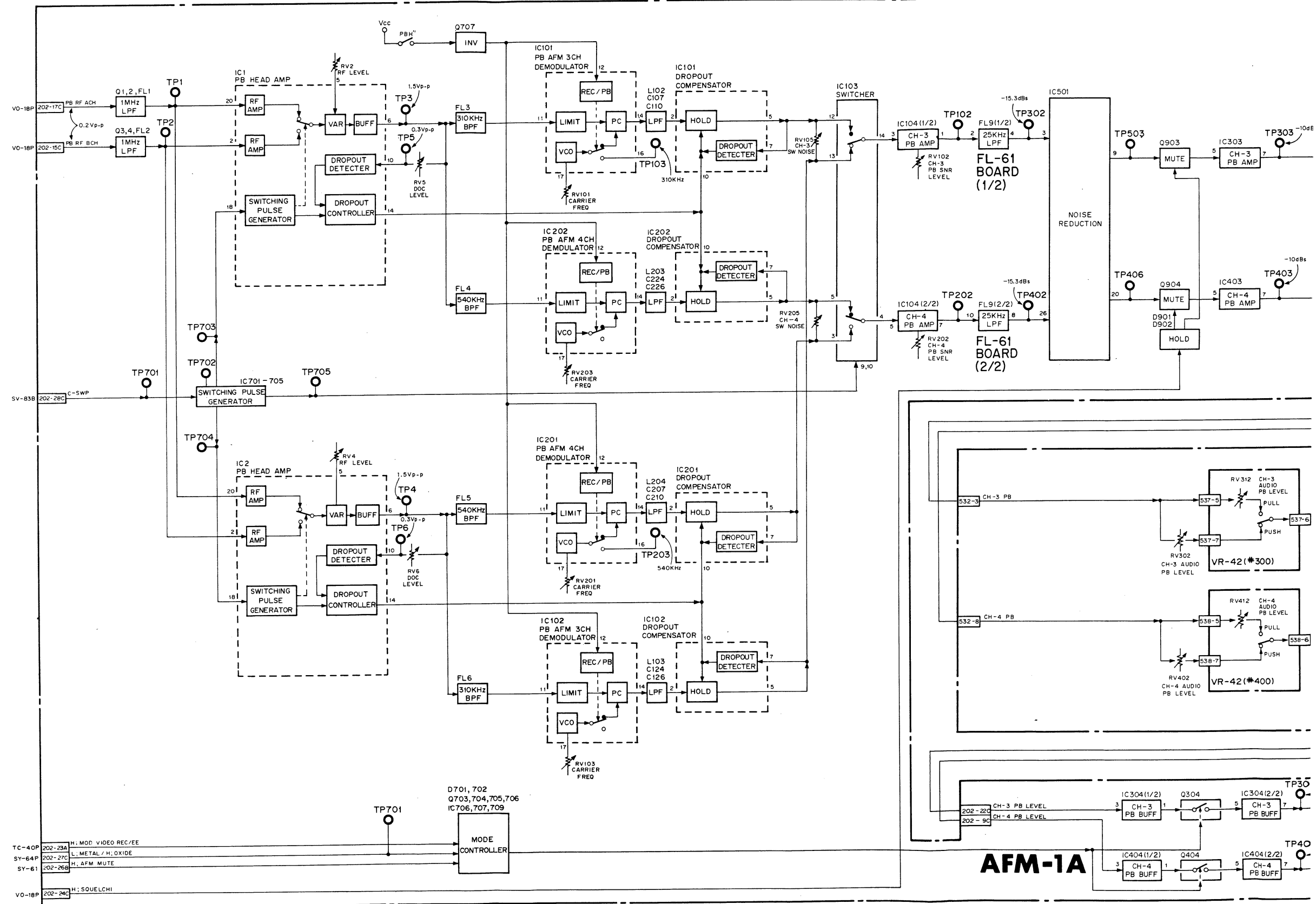


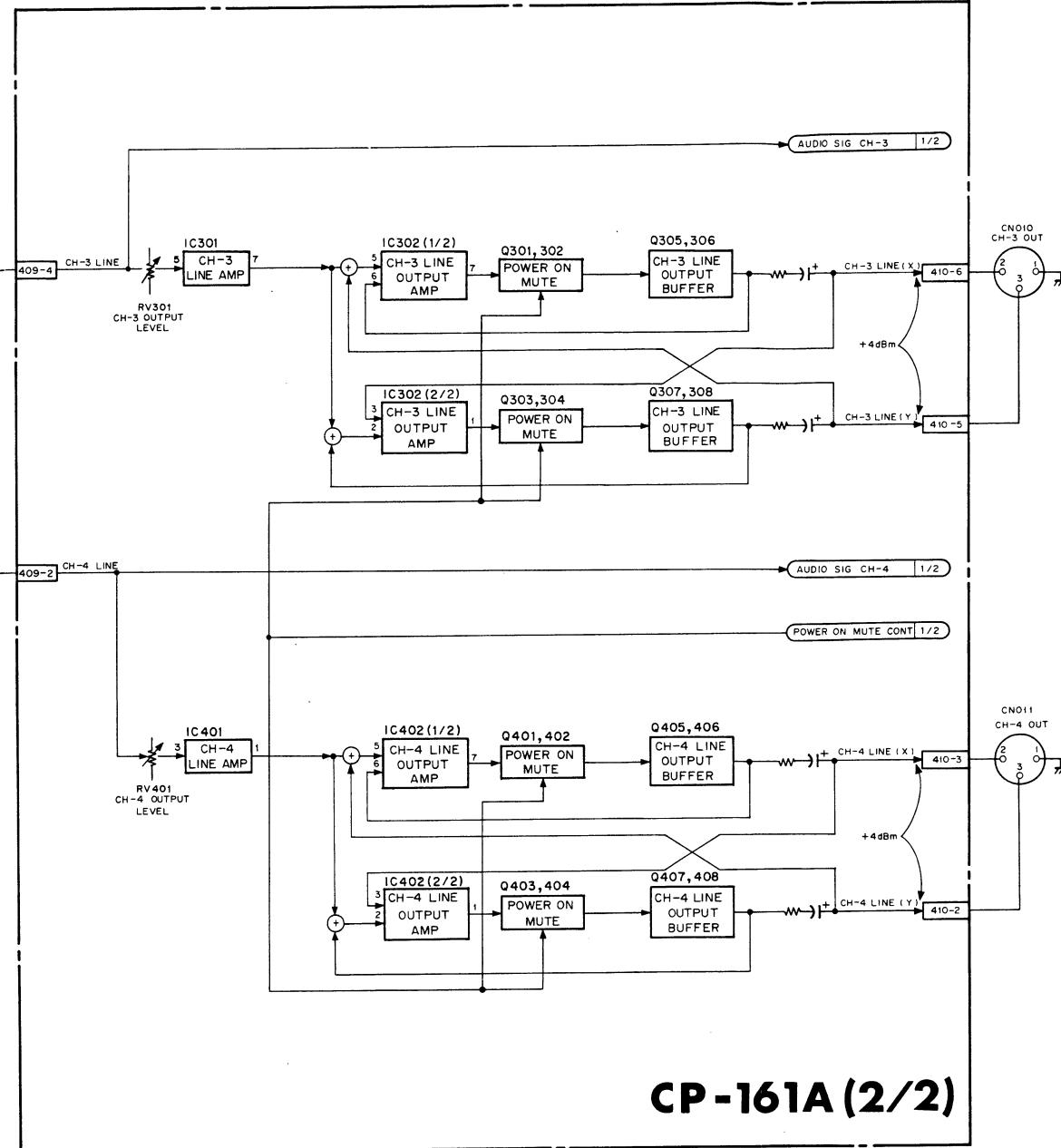
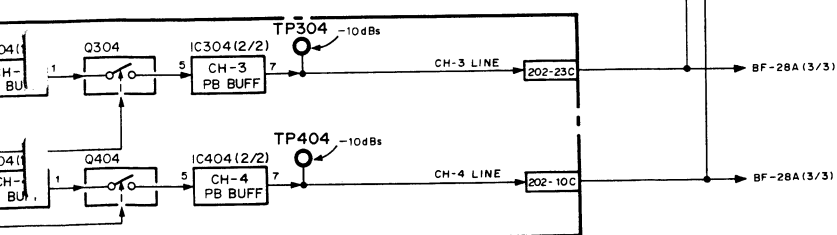
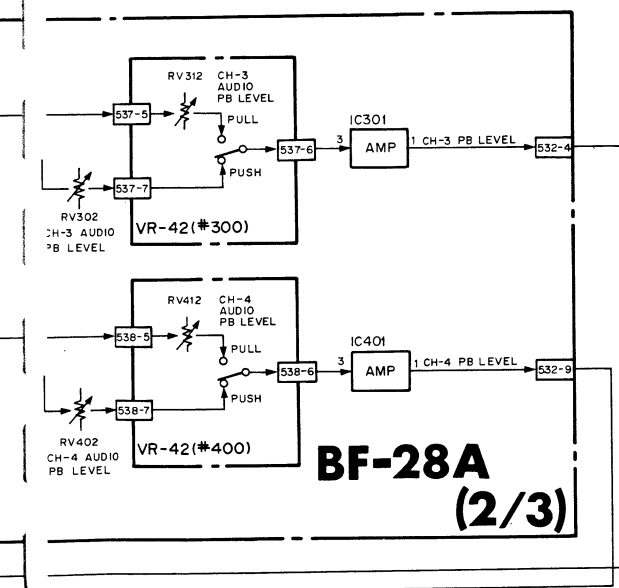
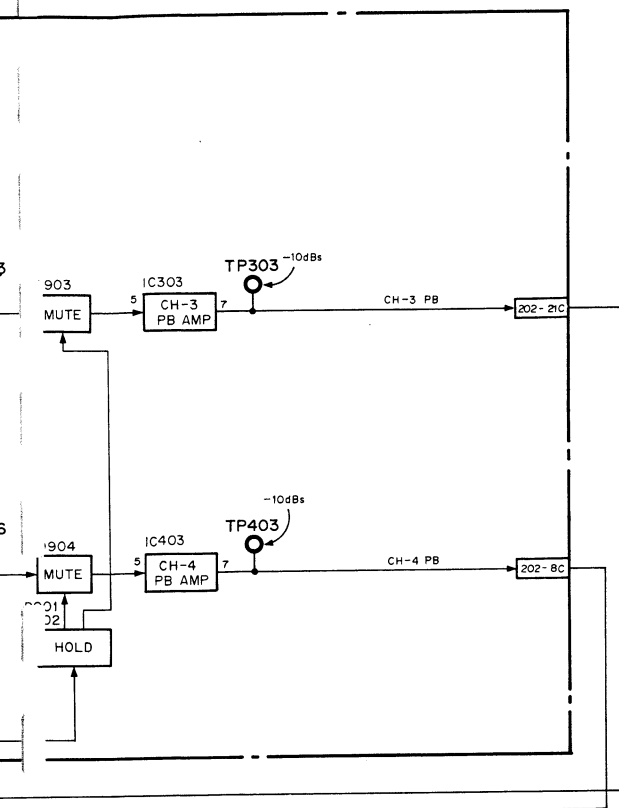
CP-161A (1/2)

LNG AUDIO

BVW-60P  
BVW-65P  
BVW-95P

S/N 12855 and higher

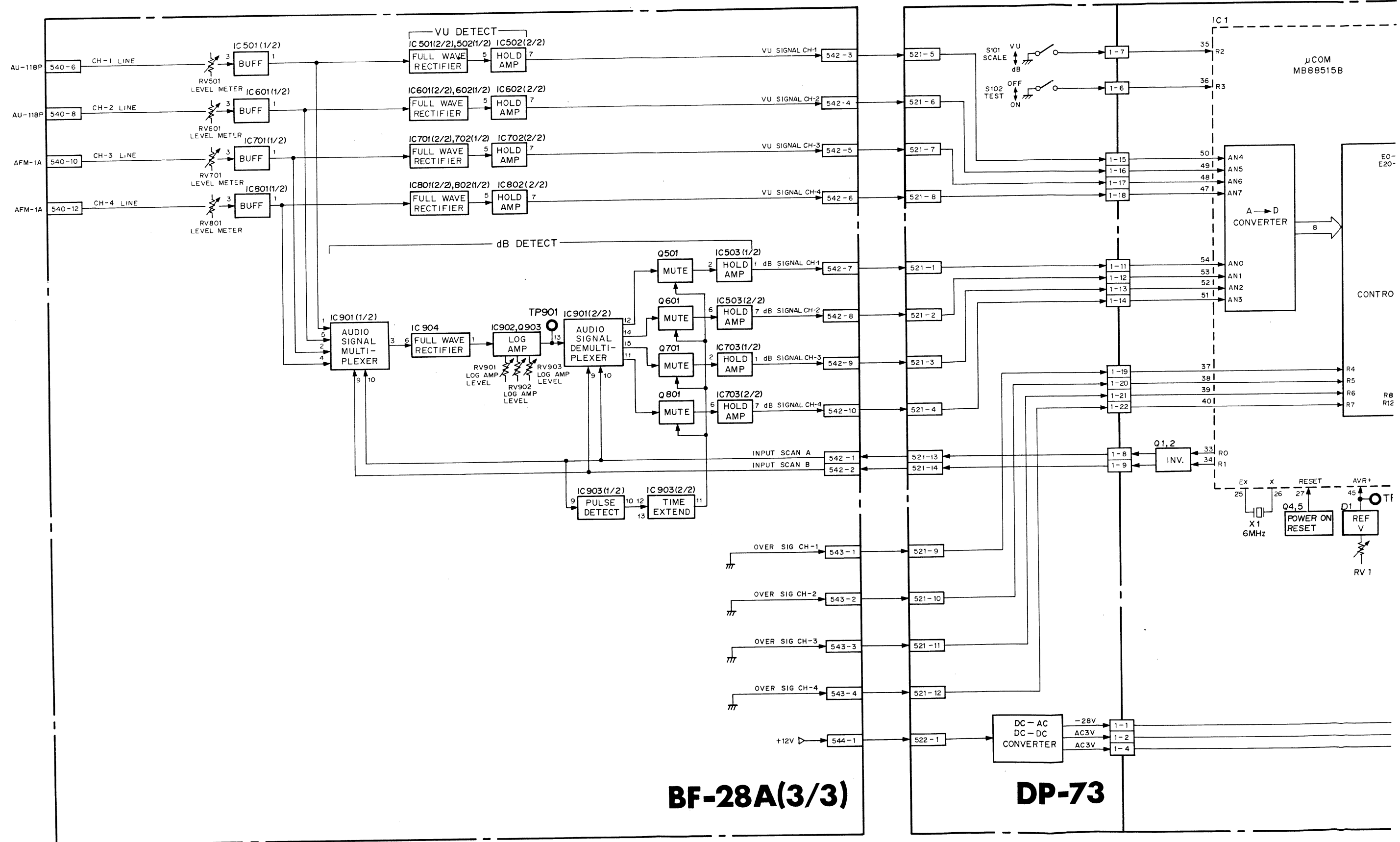


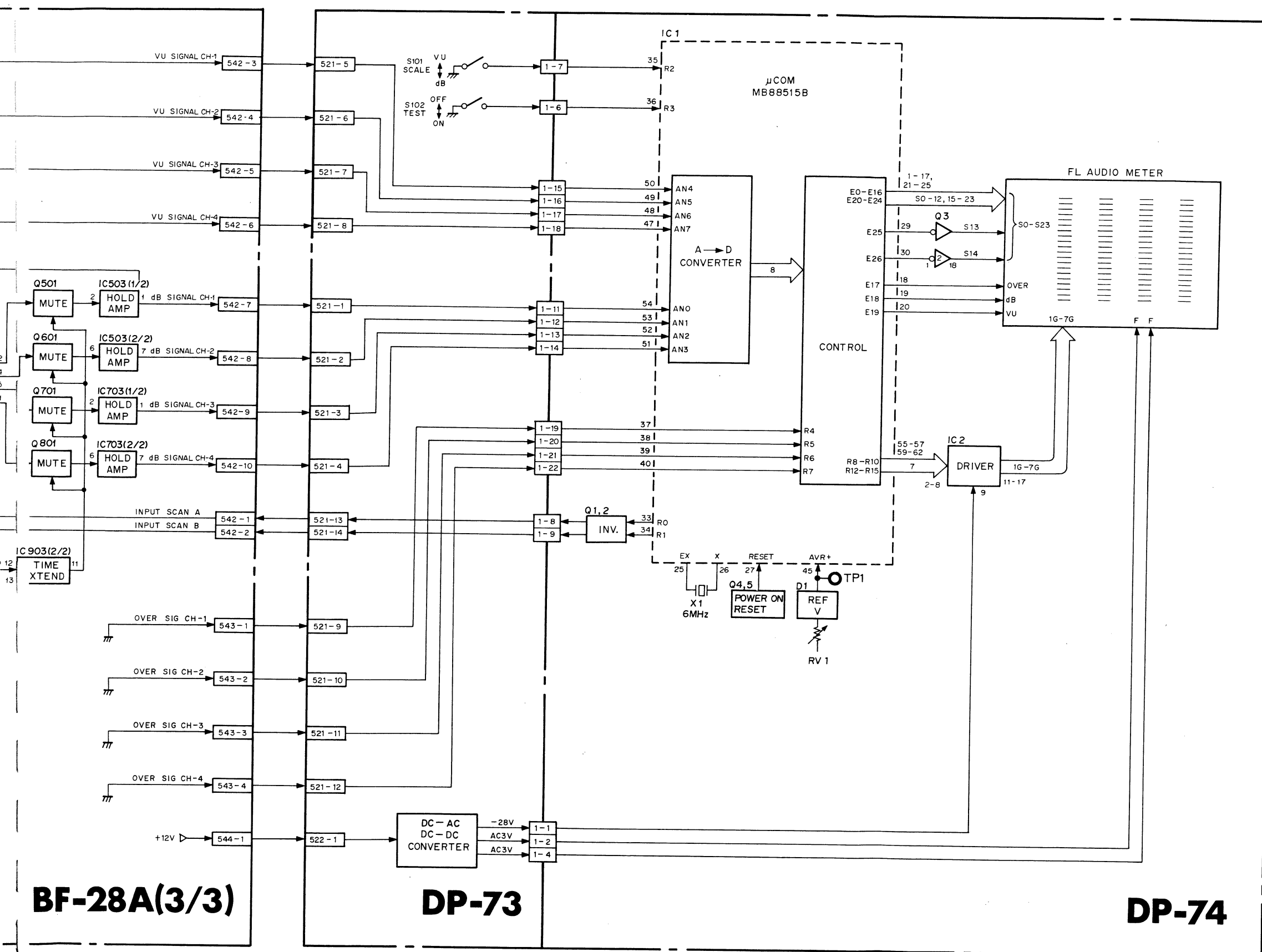


# AFM AUDIO

BVW-60P  
BVW-65P  
BVW-95P

AUDIO METER

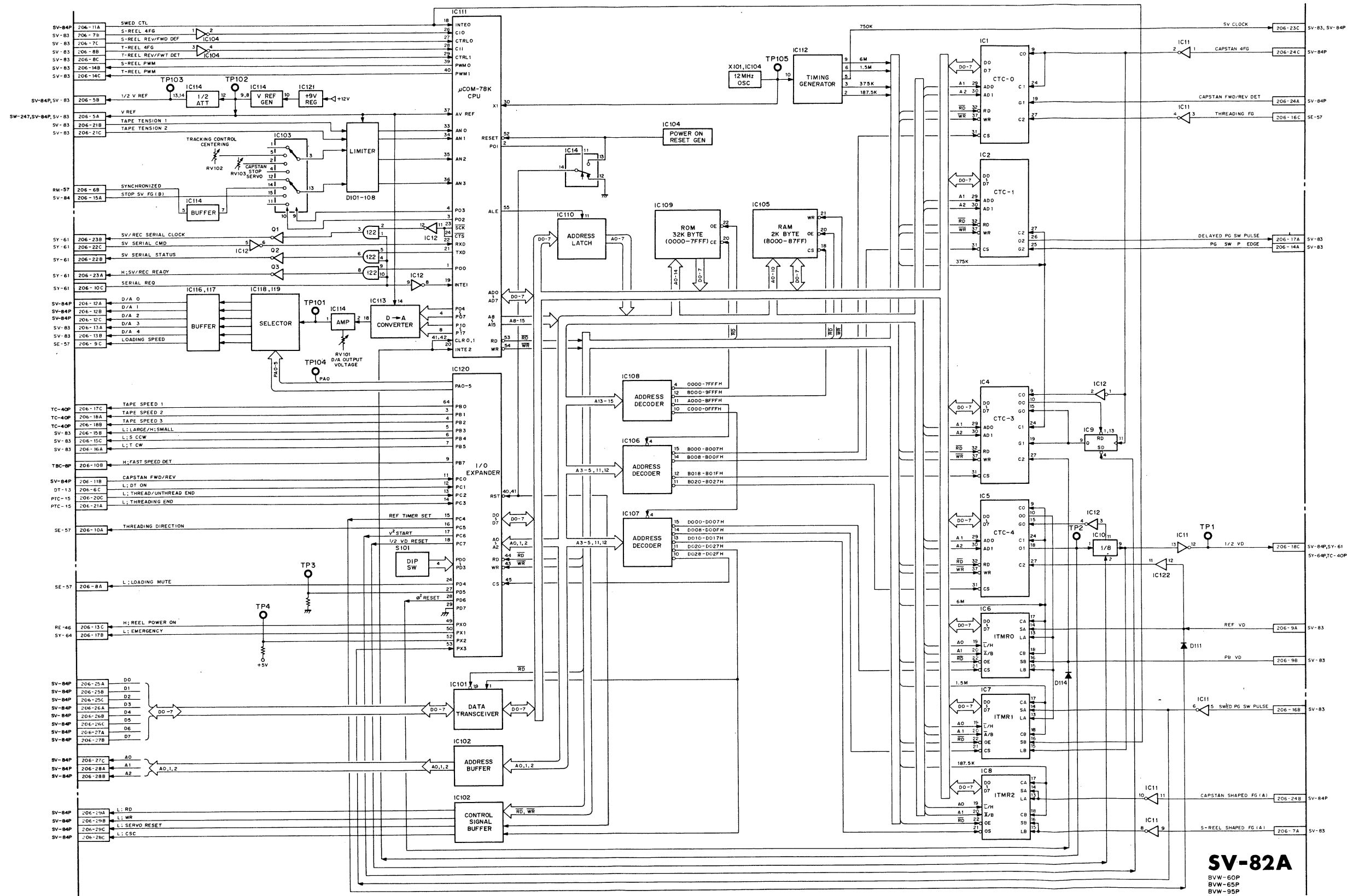




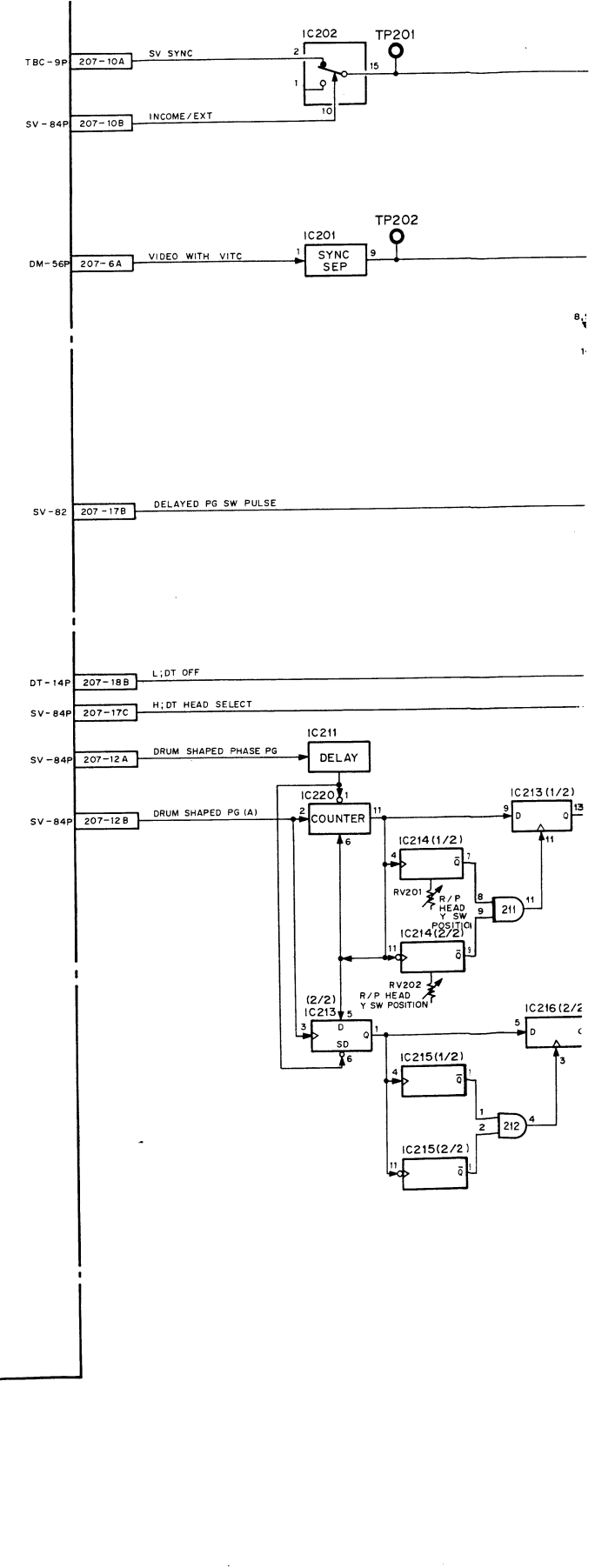
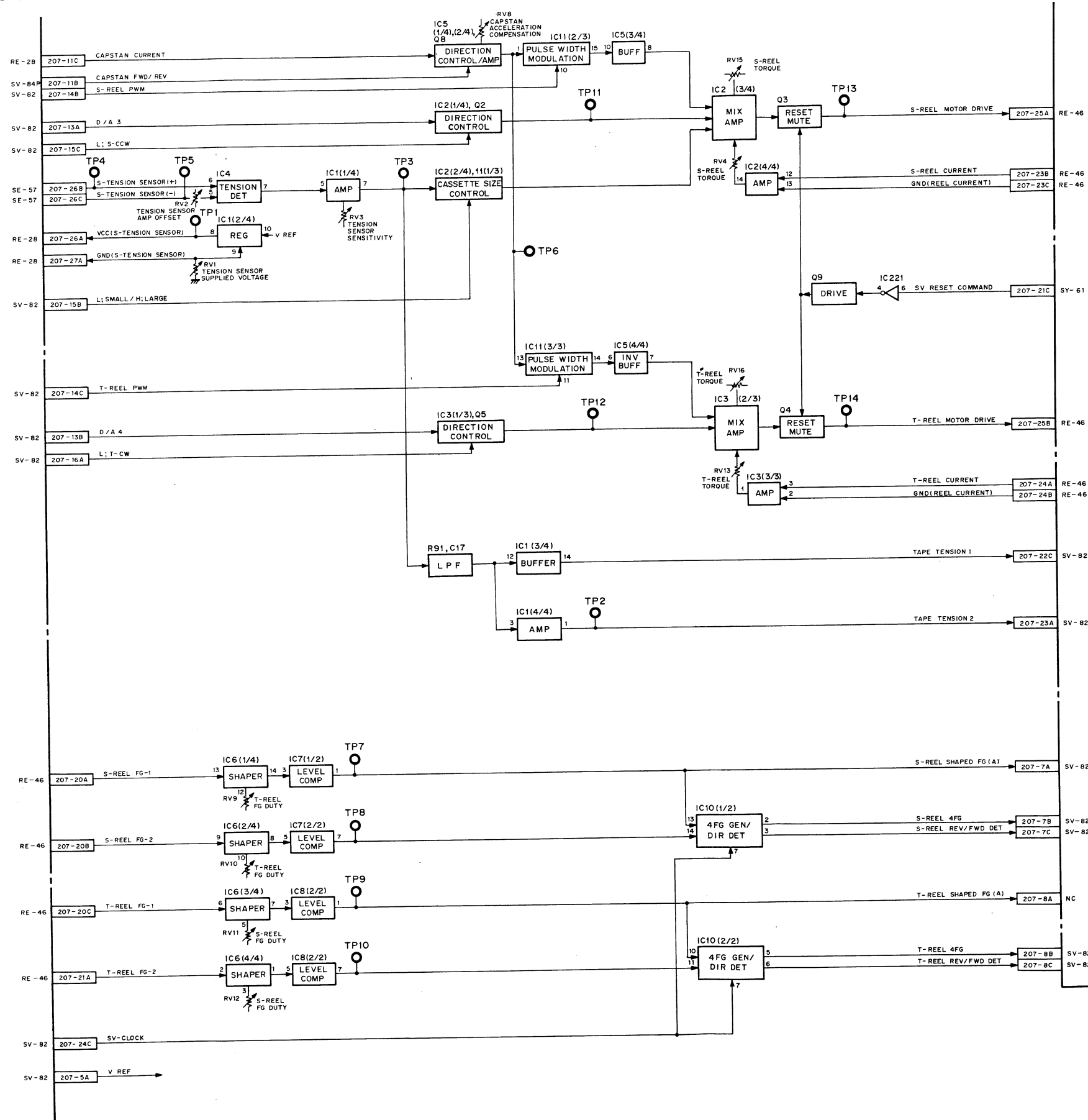
# AUDIO METER

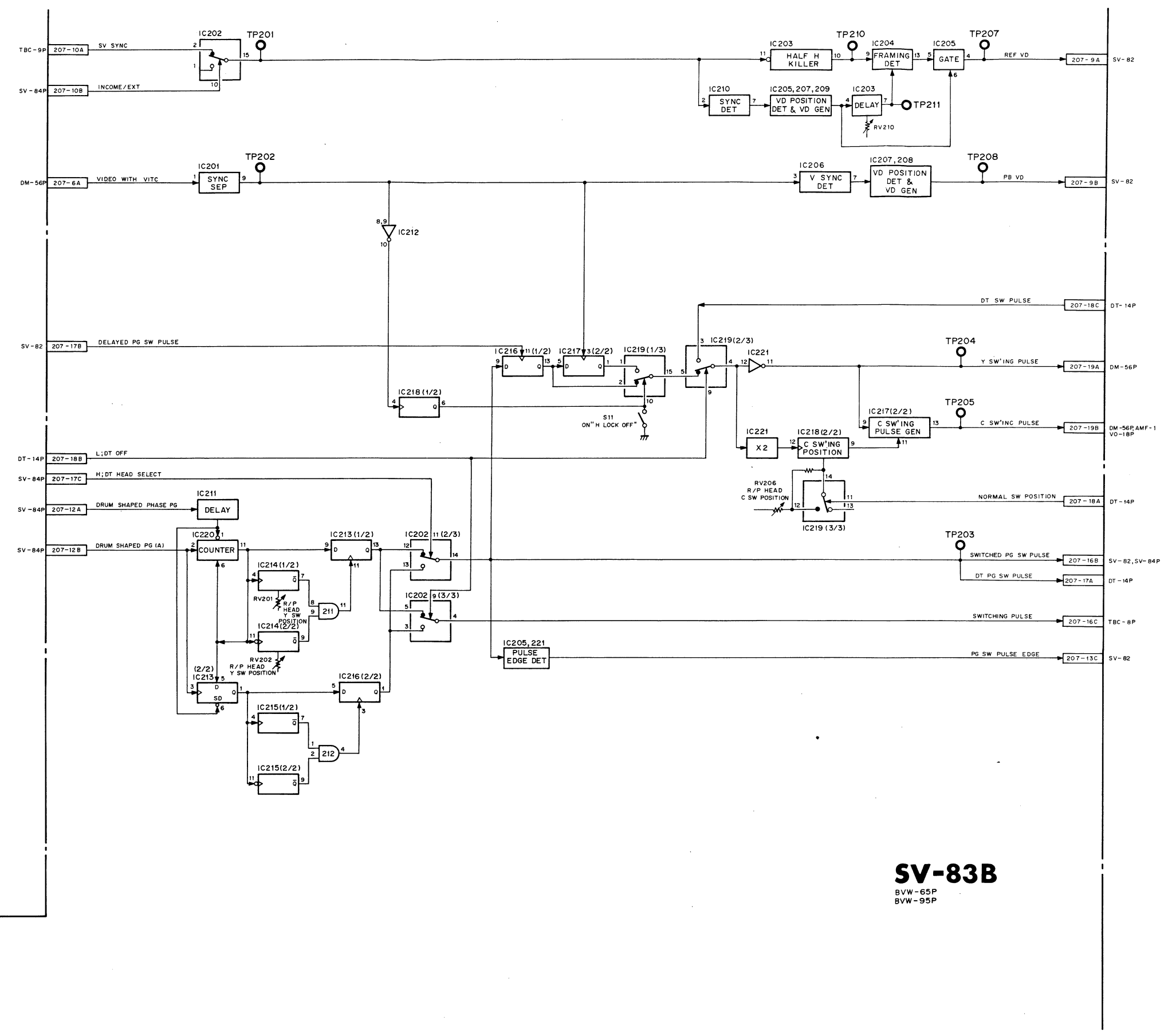
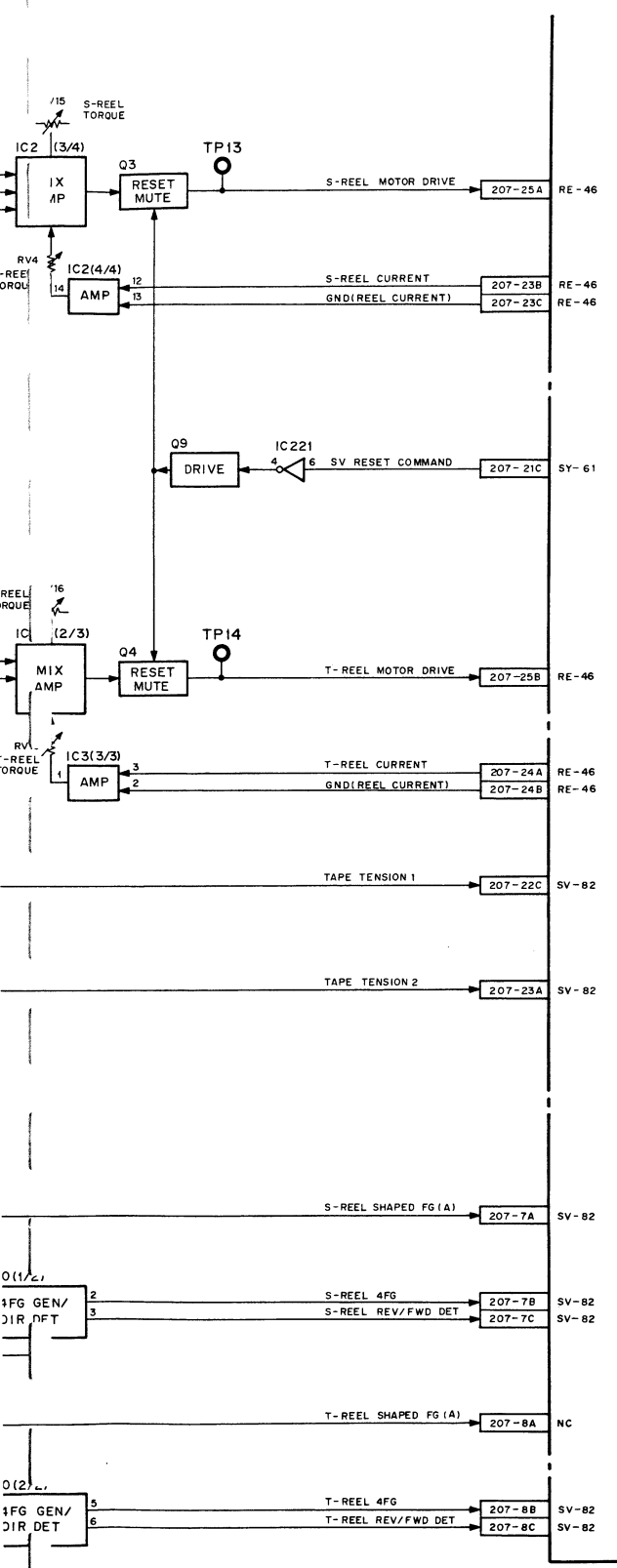
BVW-60P  
BVW-65P  
BVW-95P

# MICROCOMPUTER SERVO SYSTEM



REEL SERVO

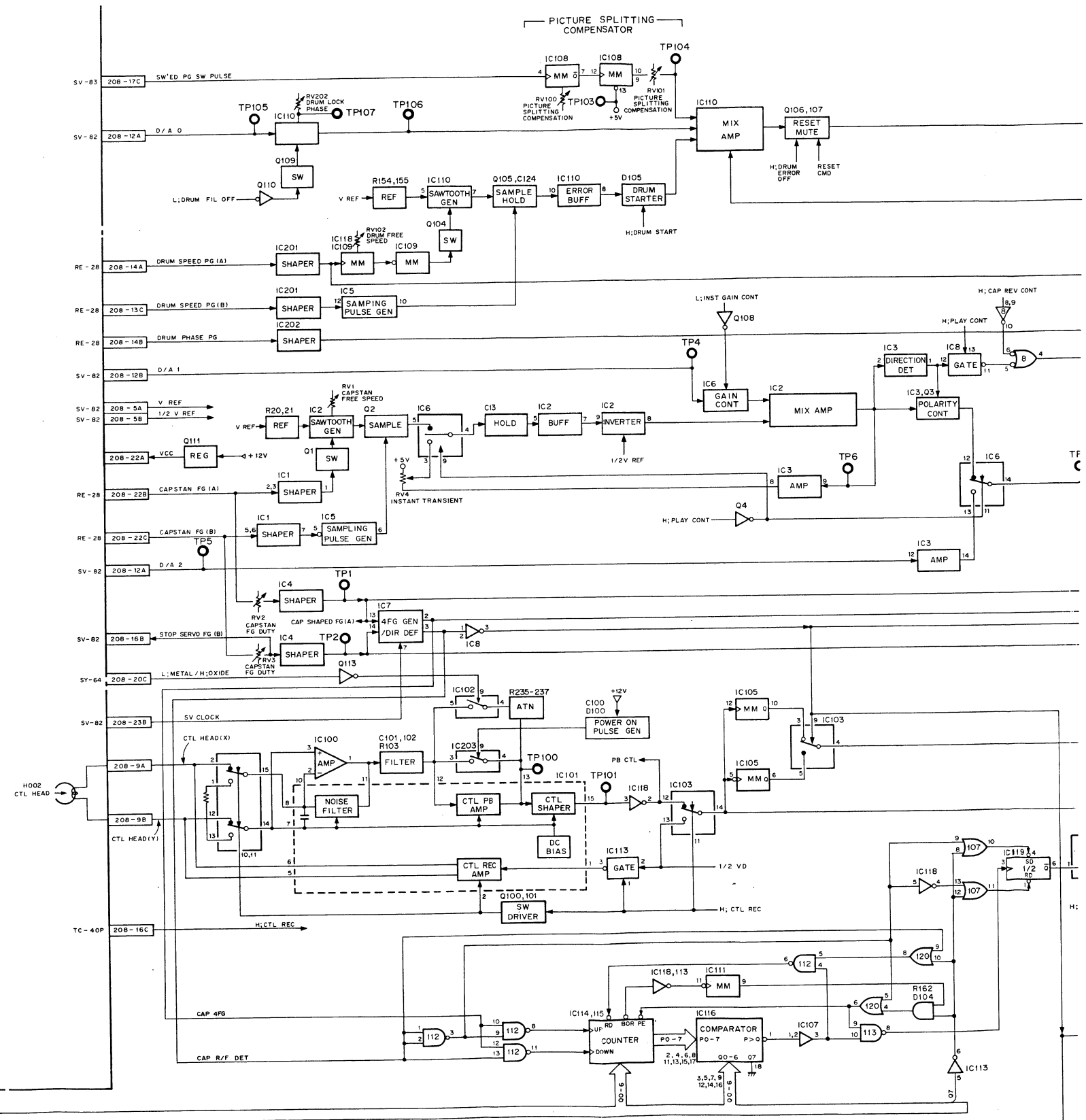


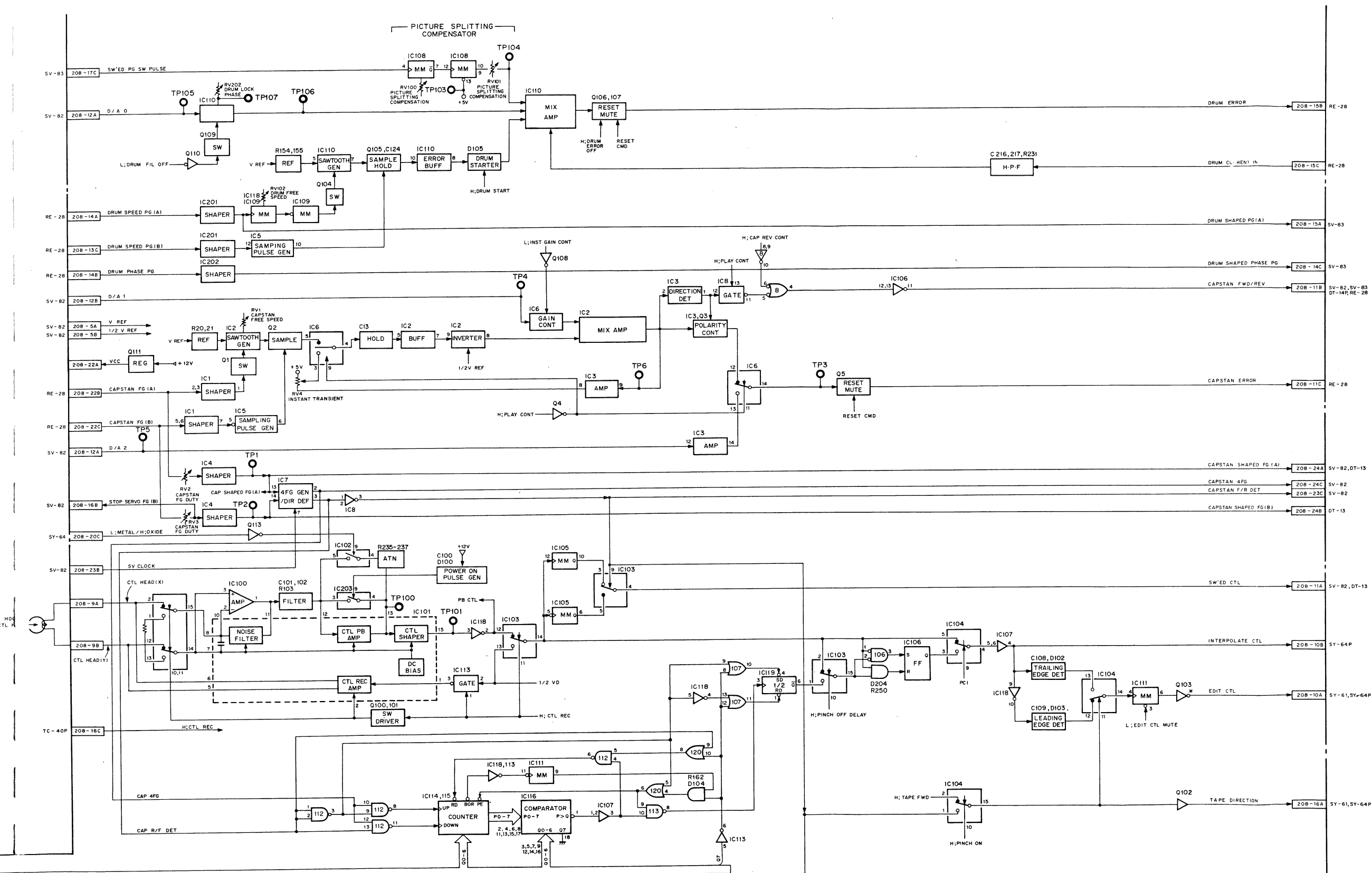


**SV-83B**  
BVW-65P  
BVW-95P



DRUM/CAPSTAN SERVO DRUM/





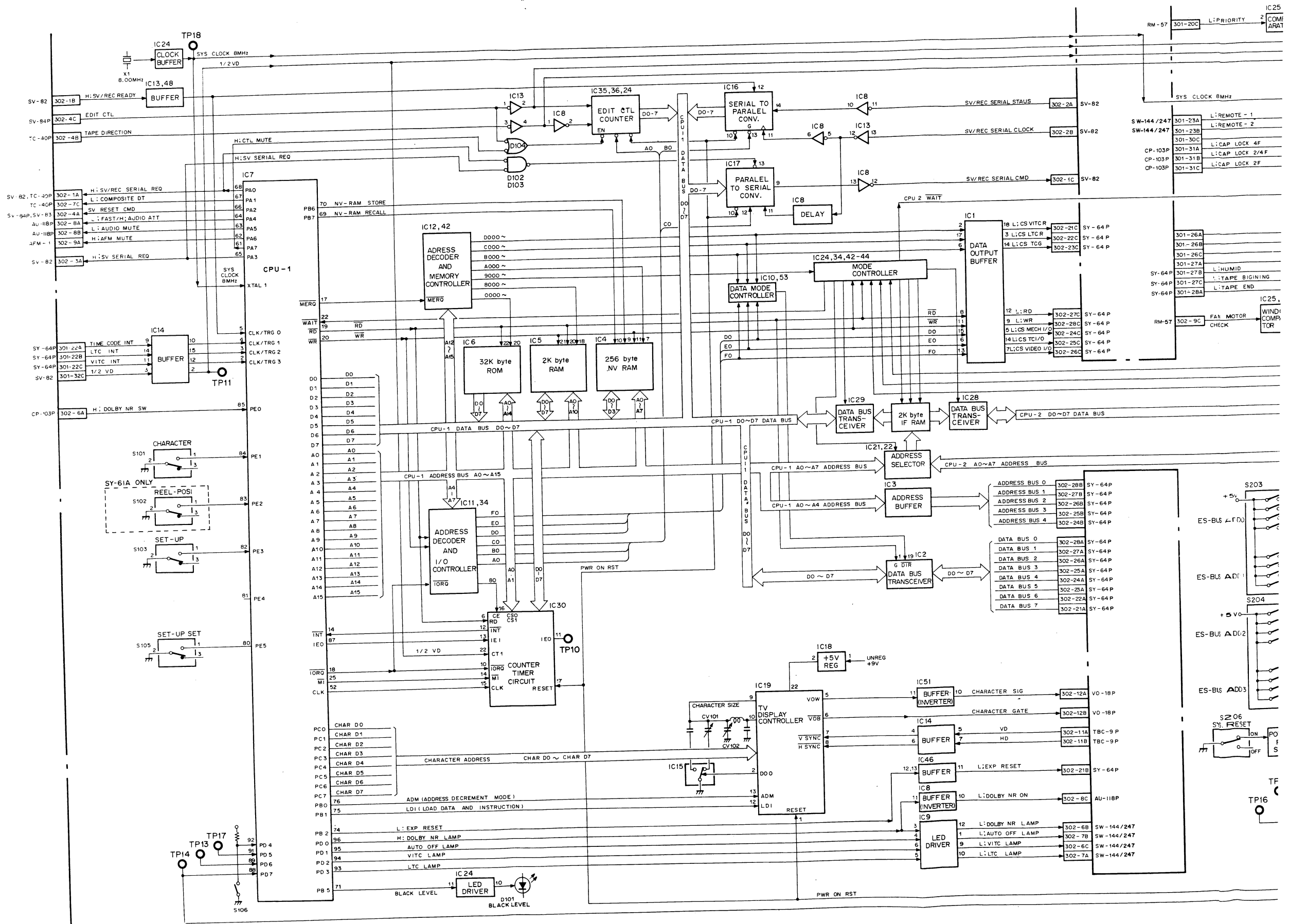
SV-84P

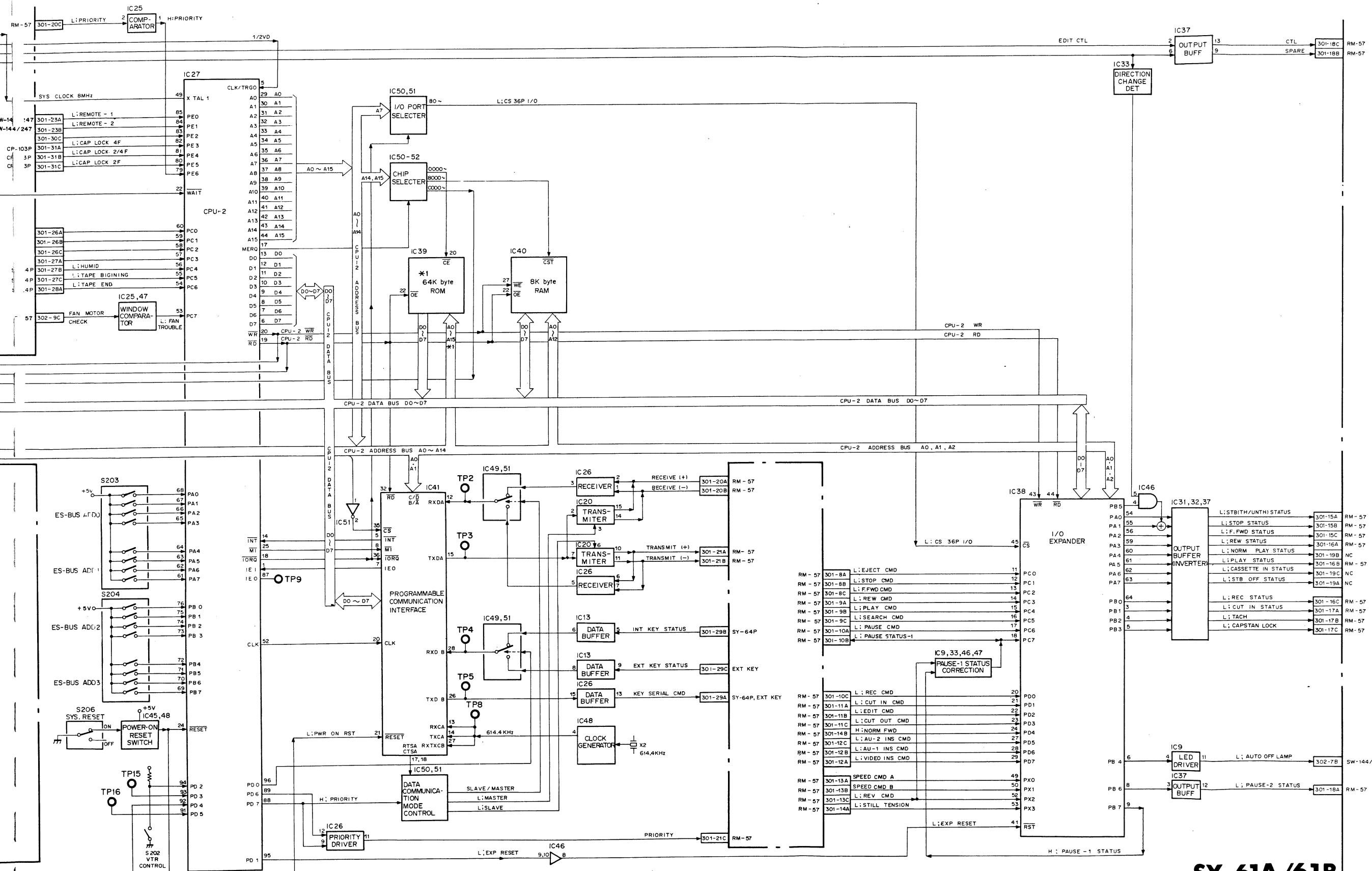
BVW-65P  
BVW-95P

SYSTEM CONTROL

NOTE

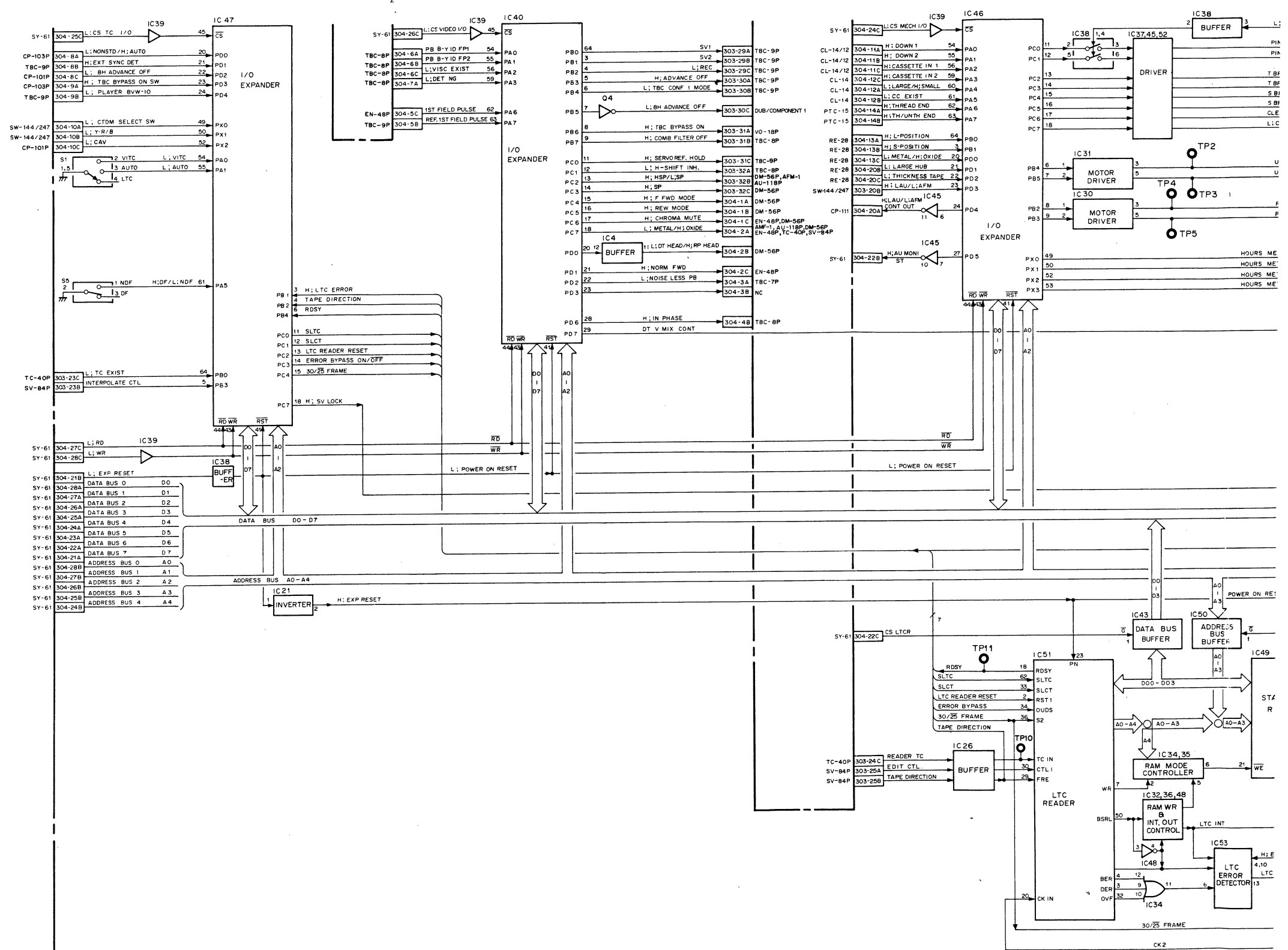
MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC39 32k → 64k A0~A14 → A0~A15	S/N 10575 ~

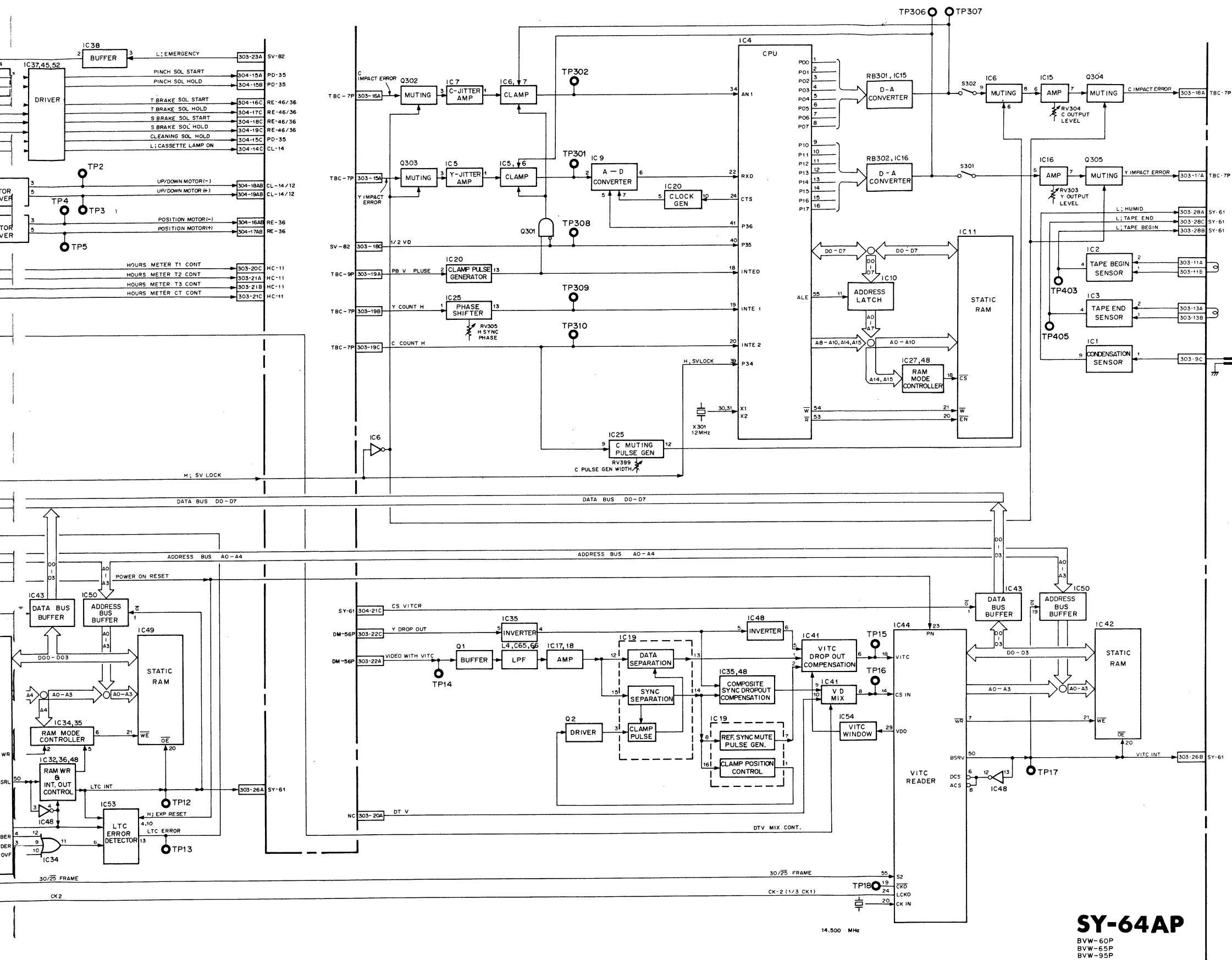




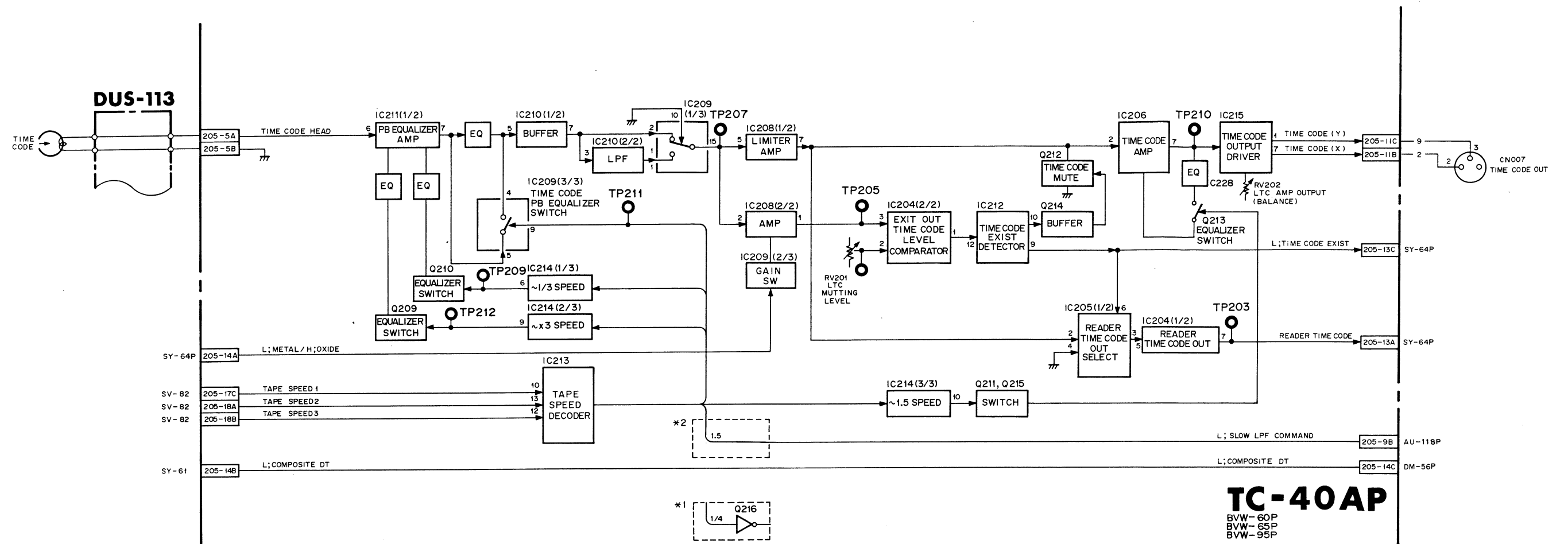
**SY-61A/61B**  
 BVW-60P----SY-61A  
 BVW-65P----SY-61A  
 BVW-95P----SY-61B

I/O EXPANDER  
TIME CODE READER  
TIME BASE IMPACT ERROR CORRECTOR



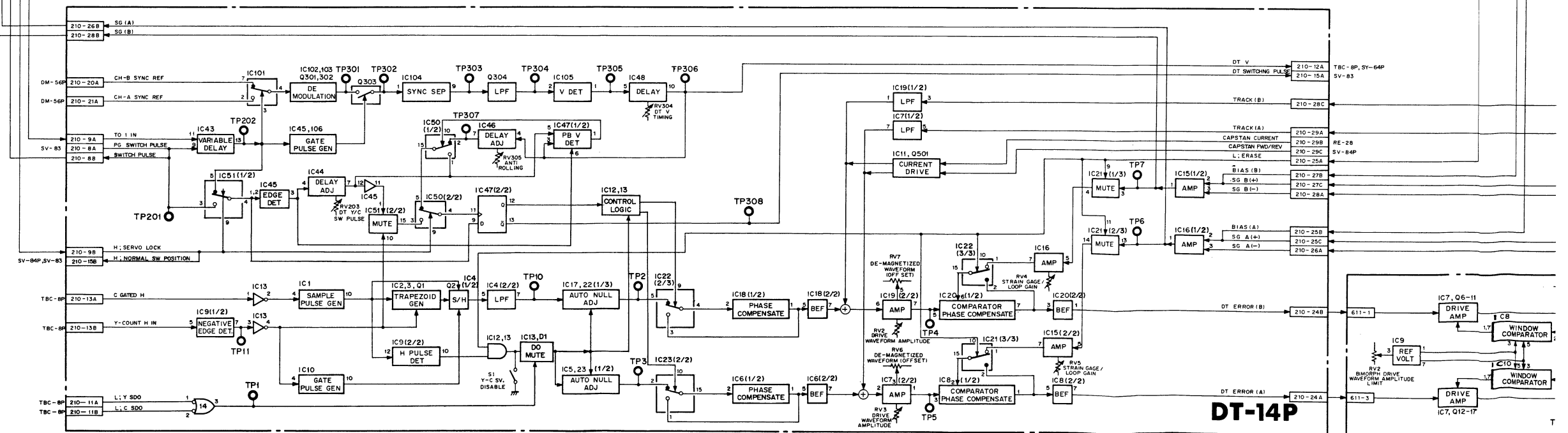
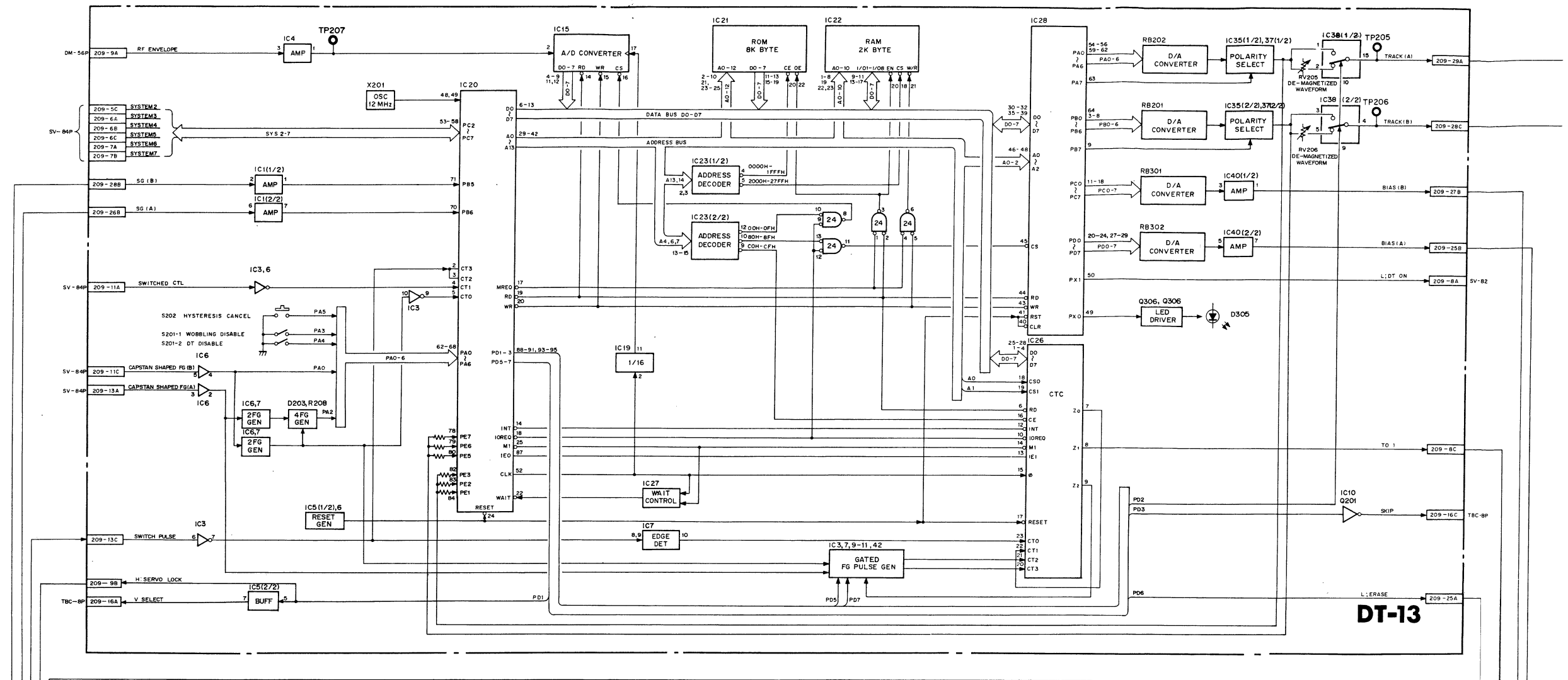


LTC PB AMPLIFIER

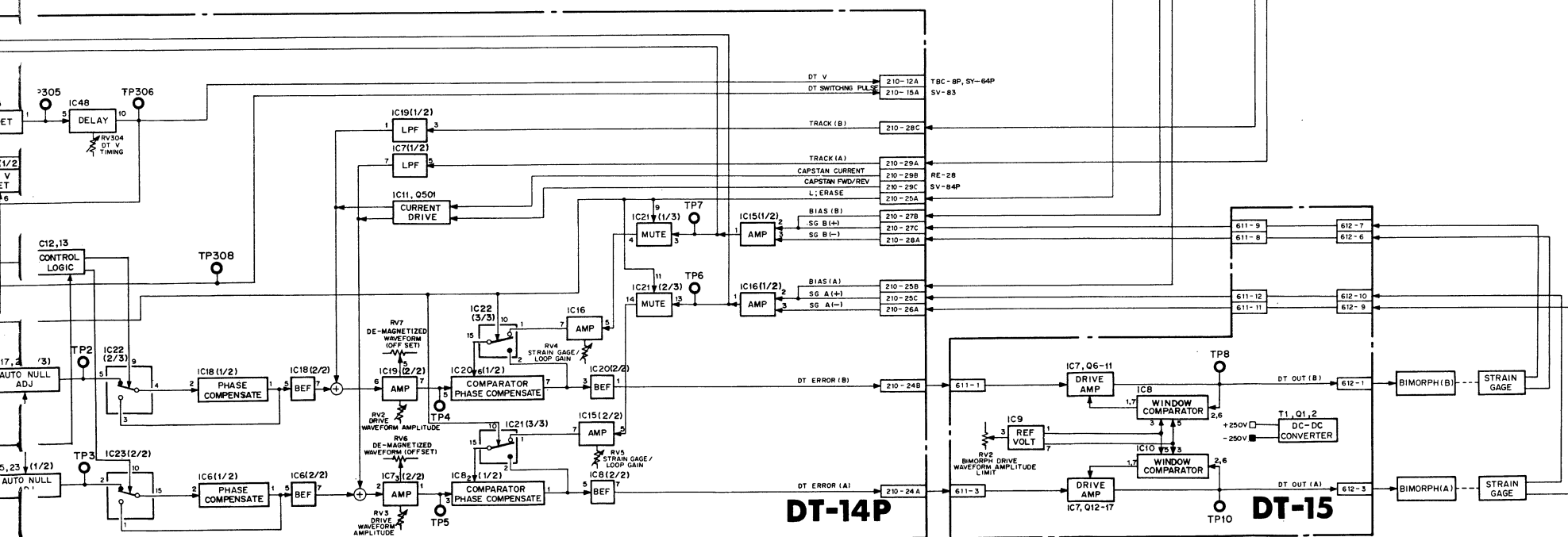
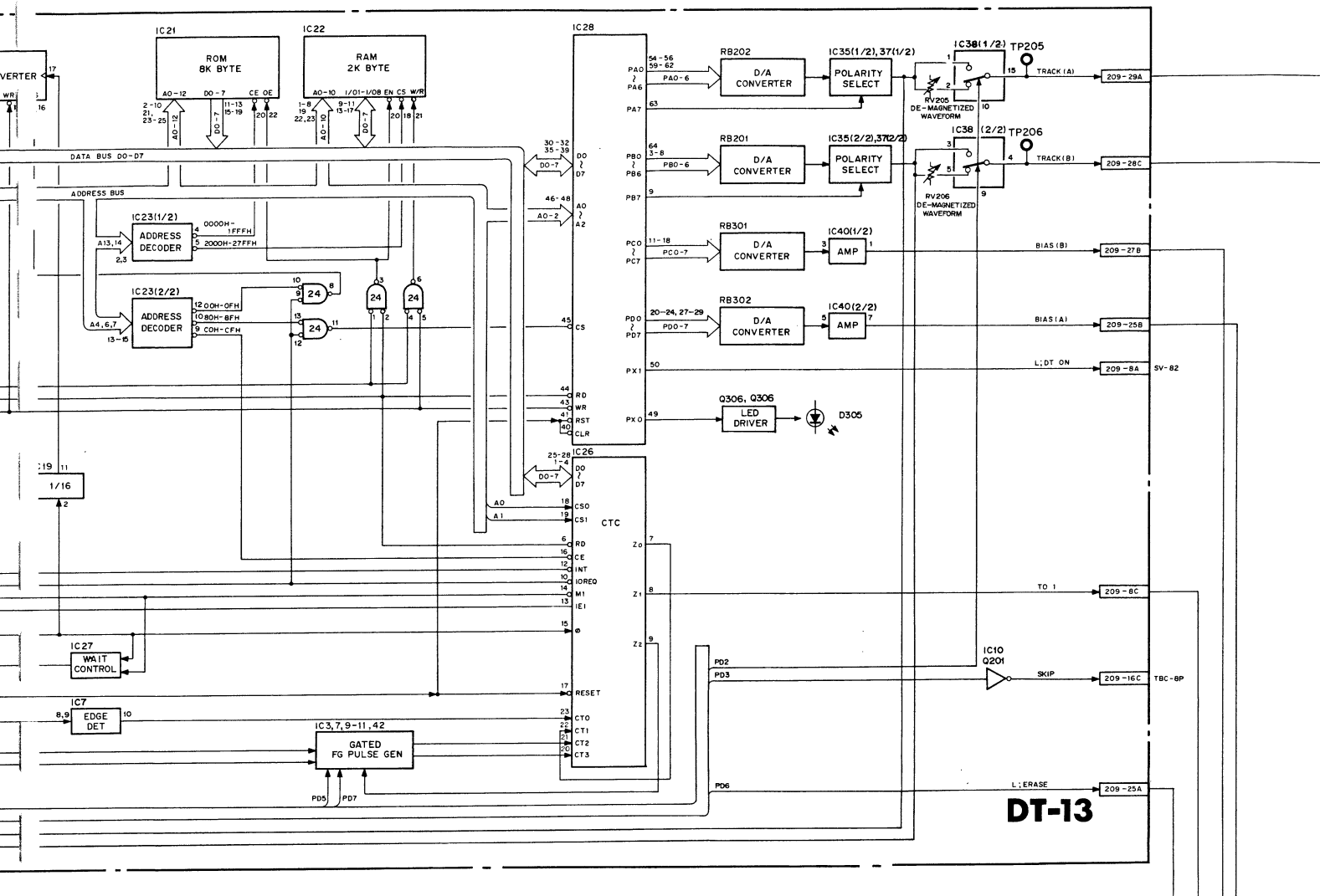


\*1...Serial No. up to 10543  
\*2...Serial No. 10544 and higher

## DYNAMIC TRACKING







DYNAMIC TRACKING

BVW-65P  
BVW-75P  
BVW-95P  
BVW-96P

## SECTION 16

### SCHEMATIC DIAGRAM

#### CIRCUIT CONFIGURATION

The circuit information is provided below.

System	Board	Circuit function	System	Board	Circuit function
VIDEO	DM-56P	Y/C Demodulator	AUDIO	HP-33	Headphones Amplifier/Jack
	DUS-259	Metal/Oxide LPF Switch		VR-62	Headphones Level Volume
	DUS-269	C RF Phase EQ.		DP-74	Audio Level Meter
	DUS-288	DO RF EQ.		DP-73	DC-AC/DC Converter
	*3			SW-144A	Select Switch/Display
	EQ-26 *3	RF EQ.		DP-72	RF Meter LED
	EQ-28 *3	RF EQ.	SERVO	SV-82A	Microcomputer Servo
	TBC-7P *6	Time Base Corrector		SV-83B	Reel Servo
	SW-261	Metal/Oxide Y/C Delay		SV-84P	Capstan/Drum Servo
	*2	Adjust Volume		RE-28	Capstan/Drum Motor Driver
	TBC-7D *7	Time Base Corrector		PTC-20	Cassette Detector (Tape Thickness, Reel Hub Diameter, Metal/Oxide)
	TBC-8P *6	Time Base Corrector		PTC-36	Cassette Detector (Tape Thickness, Reel Hub Diameter, Metal/Oxide)
	NR-25	Y Digital Noise Reduction		PTC-21	Reel Table Position Detector
	*6			DR-56	Drum Error Amplifier, Capstan/Reel Motor Driver
	TBC-12P	Time Base Corrector		RE-36	Reel Motor Driver
	*7			RM-40	Reel Motor
	NR-32	Y Digital Noise Reduction, Read Clock Generator		DE-15	Reel Motor FG
	*7			SE-57	Threading Motor Control
	TBC-9P	Time Base Corrector		PTC-31	Threading Motor IG
	EN-48P	C Encoder		TR-18	Tape Tension Sensor
	VO-18AP	Video Output		DT-13	Dynamic Tracking
	DUS-270	Squelch Buffer		DT-14P	Dynamic Tracking
	DEC-39A	Edge Detector		DUS-282	Strain Gage Buffer
	*4			*1	
	DEC-46AP	Edge Detector		DT-15	Dynamic Tracking
	*5				
AUDIO	CP-103AP	Sub Control Panel			
	CP-101AP	REF Video Input			
	AU-118P	LNG Audio Head Amplifier			
	AFM-1A	AFM Audio Demodulator			
	FL-61	Low-Pass Filter			
	BF-28A	Audio Buffer/Level Detector			
	VR-42	Audio PB Volume			
	CP-111	Audio Output			
	CP-161A	Amplifier/Driver			
	CP-113	Audio Balanced Amplifier			

System	Board	Circuit function
SYSTEM CONTROL	SY-61A	System Control
	SY-64AP	Time Code Reader
	PD-35	Pinch/Cleaning Solenoid
	PTC-15	Thread/Unthread End Sensor
	RM-57	Remote Connector
	CL-14	Cassette-up Compartment
	CL-24	Cassette-up Compartment
	*8	LED
	PC-32	Large/Small Cassette
	*2	Detector
	PC-47	Large/Small Cassette
	*3	Detector
	PC-33	Cassette Down Detector
	PC-41	Cassette In Detector
	CCM-2	Up/Down Motor
	HC-11	Hours Meter
	KY-96B	Keyboard
	KY-107	Keyboard
	PTC-32	Search Dial
	DP-71A	Time Counter Display
	PT-9	Power Transistor
	TC-40AP	LTC PB Amplifier
OTHERS	AC-81 *2	Relay Board of AC Inlet
	AC-96 *3	Relay Board of AC Inlet
	M1	Switching Regulator
	M2	Switching Regulator
	C1	Switching Regulator
	C2	Switching Regulator
	MB-191B	Mother Board
	MB-192	Mother Board
	EX-116	Extension Board
	EX-134	Extension Board
	EX-151	Extension Board

# NOTE

In the schematic diagrams, the following marks are described nearby reference number. These are parts data at factory.

## CAPACITOR (C)

## RESISTOR (R)

## VARIABLE RESISTOR (RV)

AL — ELECTROLYTIC  
AS —  
TA — TANTALUM  
CA — CERAMIC  
CC —  
CCS —  
CM —  
CS —  
MPS — MAYLAR  
PP —  
PS —  
PT —  
MD — DIPPED MICA  
MS — MICA

RC — CARBON  
RD —  
RF — FUSE  
RN — METAL  
RS —  
RW — WIREWOUND

\*1...Serial No. 10161 and higher

\*2...Serial No. up to 10191

\*3...Serial No. 10192 and higher

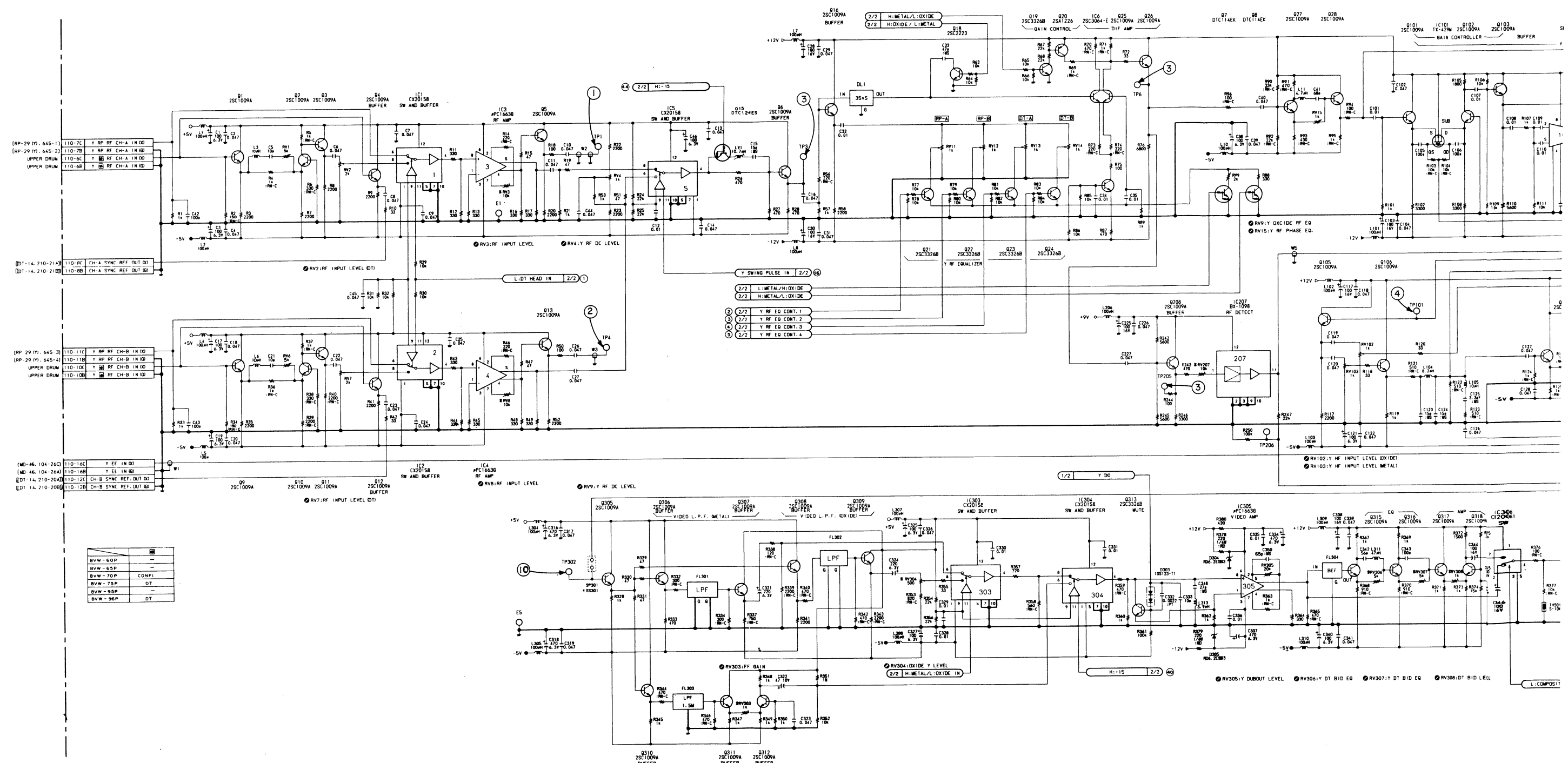
\*4...Serial No. up to 10669

\*5...Serial No. 10670 and higher

\*6...Serial No. up to 10769

\*7...Serial No. 10770 and higher

\*8...Serial No. 12112 and higher



16-7 (a)

16-8 (a)



DM-56P (1/2); Y DEMODULATOR  
EQ-26; RF EQUALIZER  
DUS-288; DO RF EQUALIZER

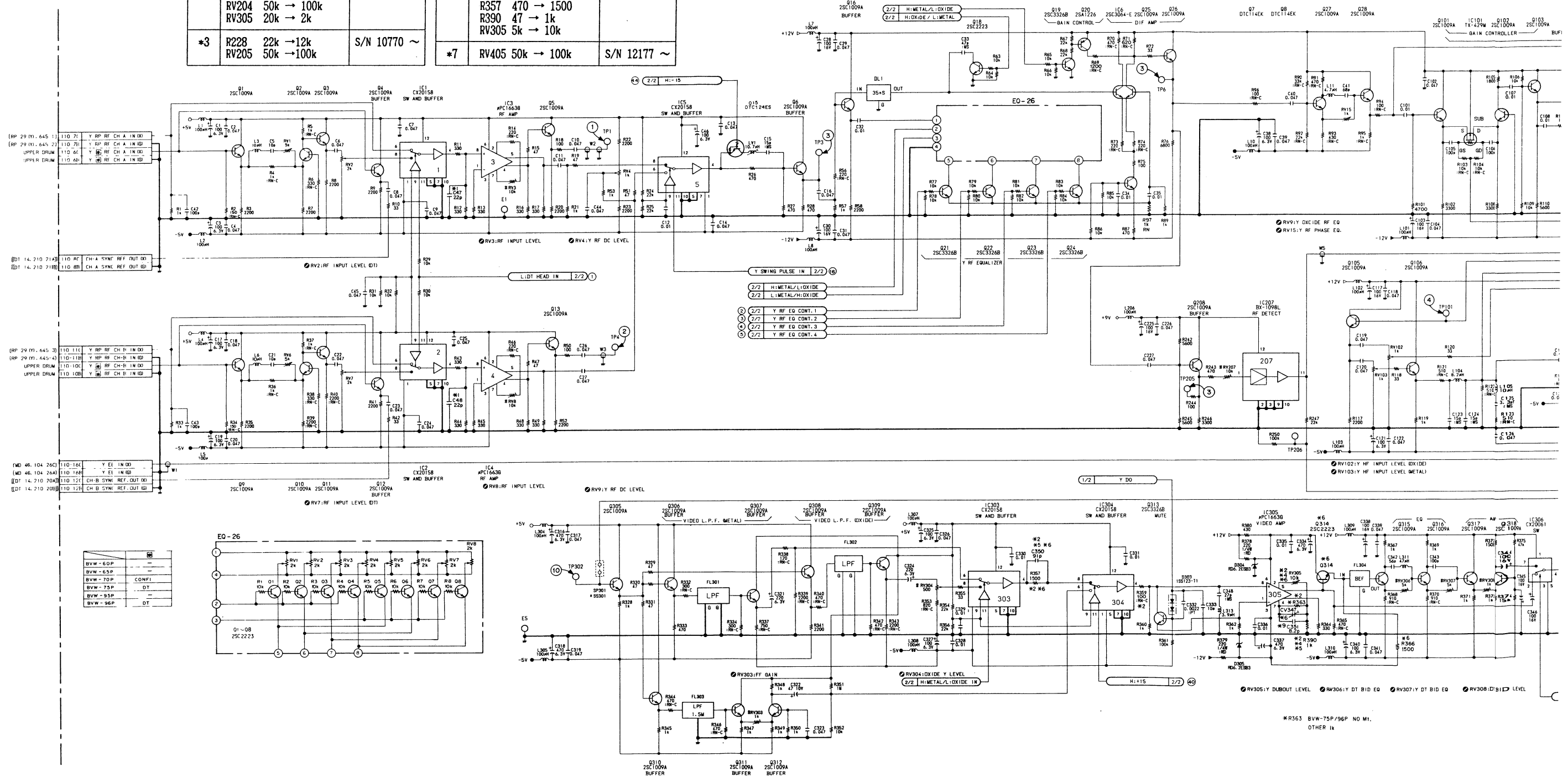
S/N 10192 and higher

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C47 22pF ADDED C48 22pF ADDED	S/N 10544 ~
*2	C350 15pF → 36pF R357 220 → 470 R358 560 DELETED R359 470 → 100 R363 1k DELETED R390 470 ADDED RV204 50k → 100k RV305 20k → 2k	S/N 10575 ~
*3	R228 22k → 12k RV205 50k → 100k	S/N 10770 ~

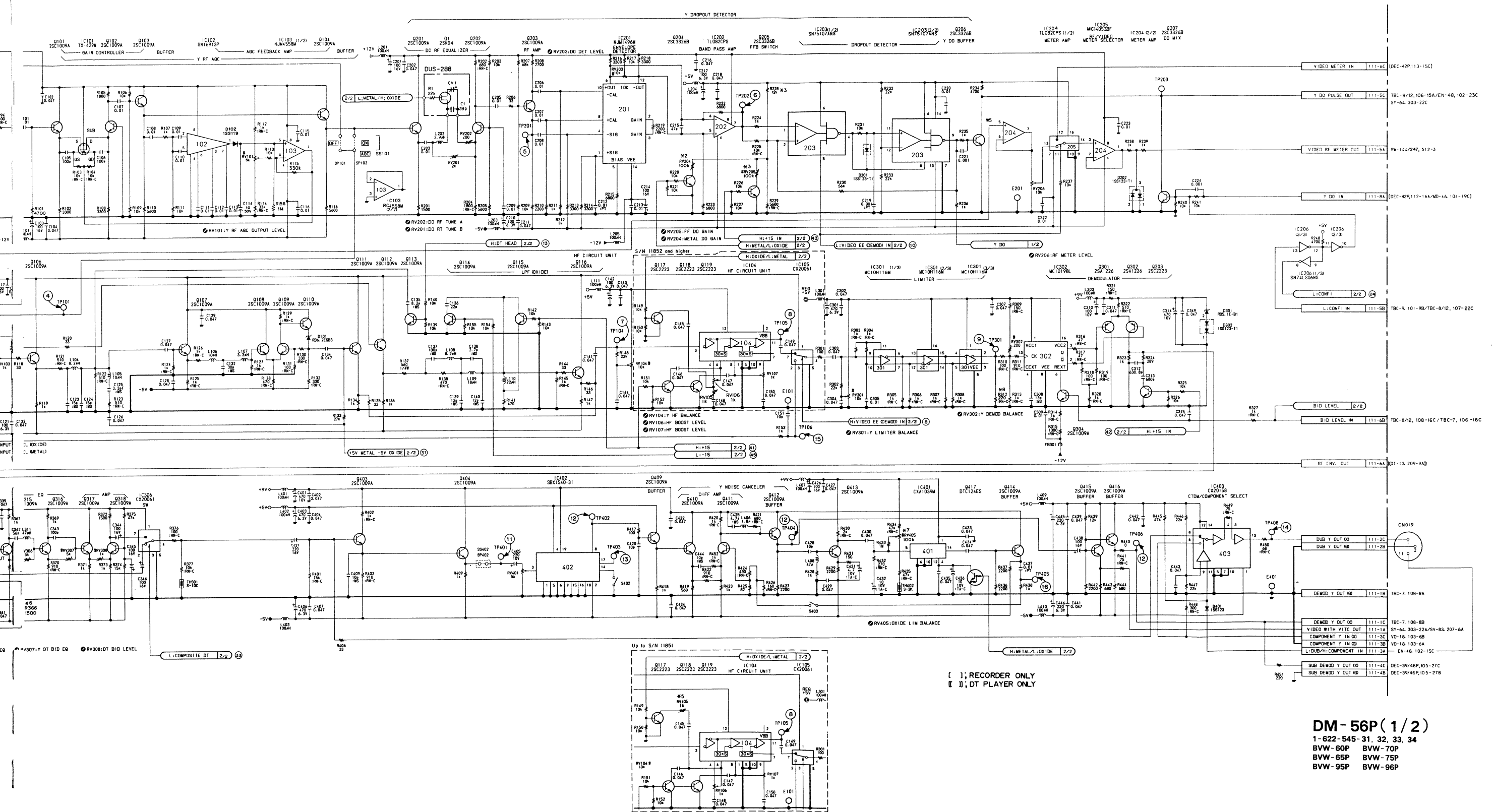
*4	R390 470 → 47 RV305 2k → 5k	S/N 11340 ~
*5	C350 36pF → 62pF RV105 2k → 1k	S/N 11472 ~
*6	ADDED CV347 Q314, R366 CHANGE C350 62pF → 91pF R357 470 → 1500 R390 47 → 1k RV305 5k → 10k	S/N 11677 ~
*7	RV405 50k → 100k	S/N 12177 ~

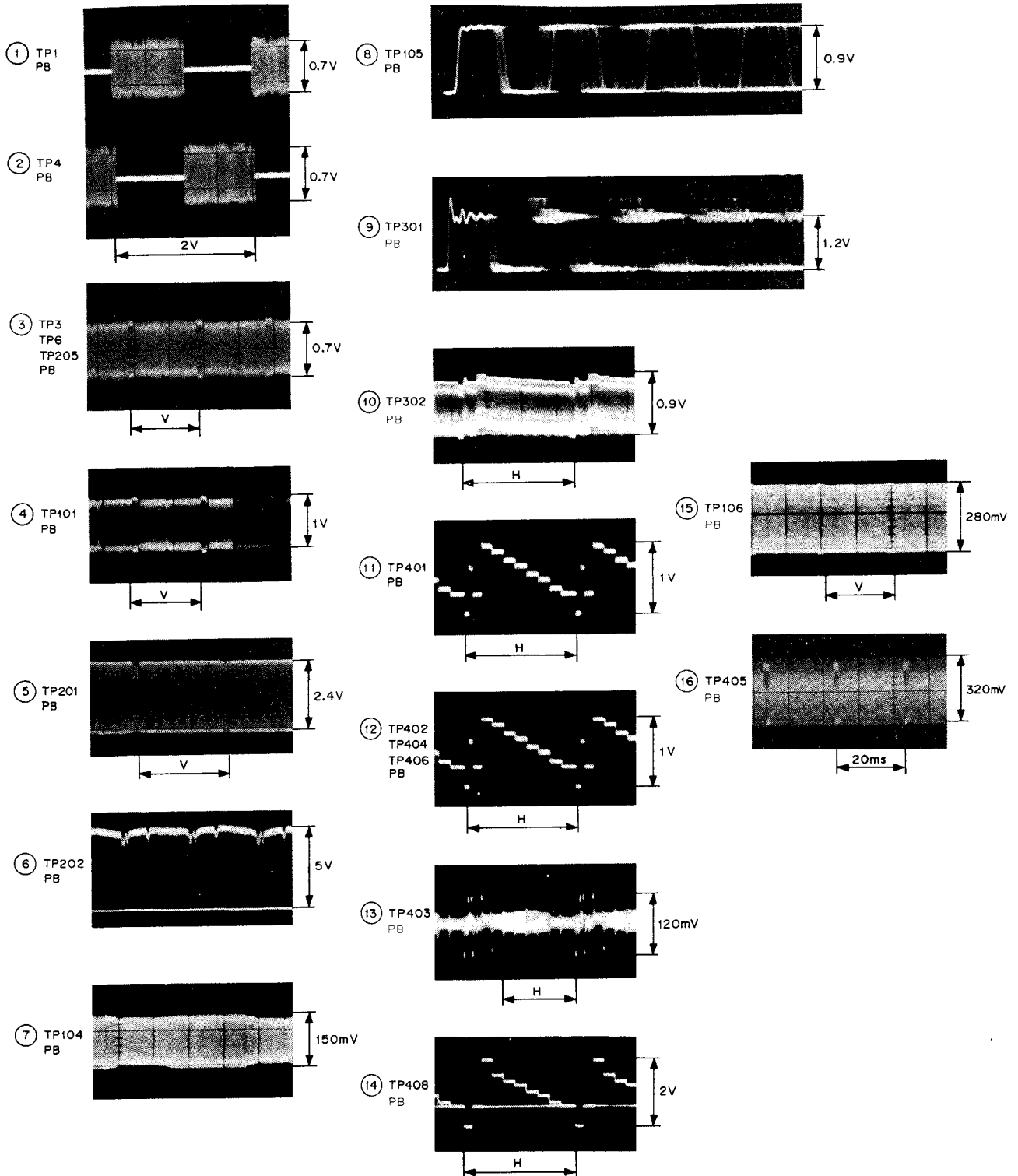
*8	R312 820 → 220	S/N 12302 ~
*9	C351 ADDED	S/N 12407 ~



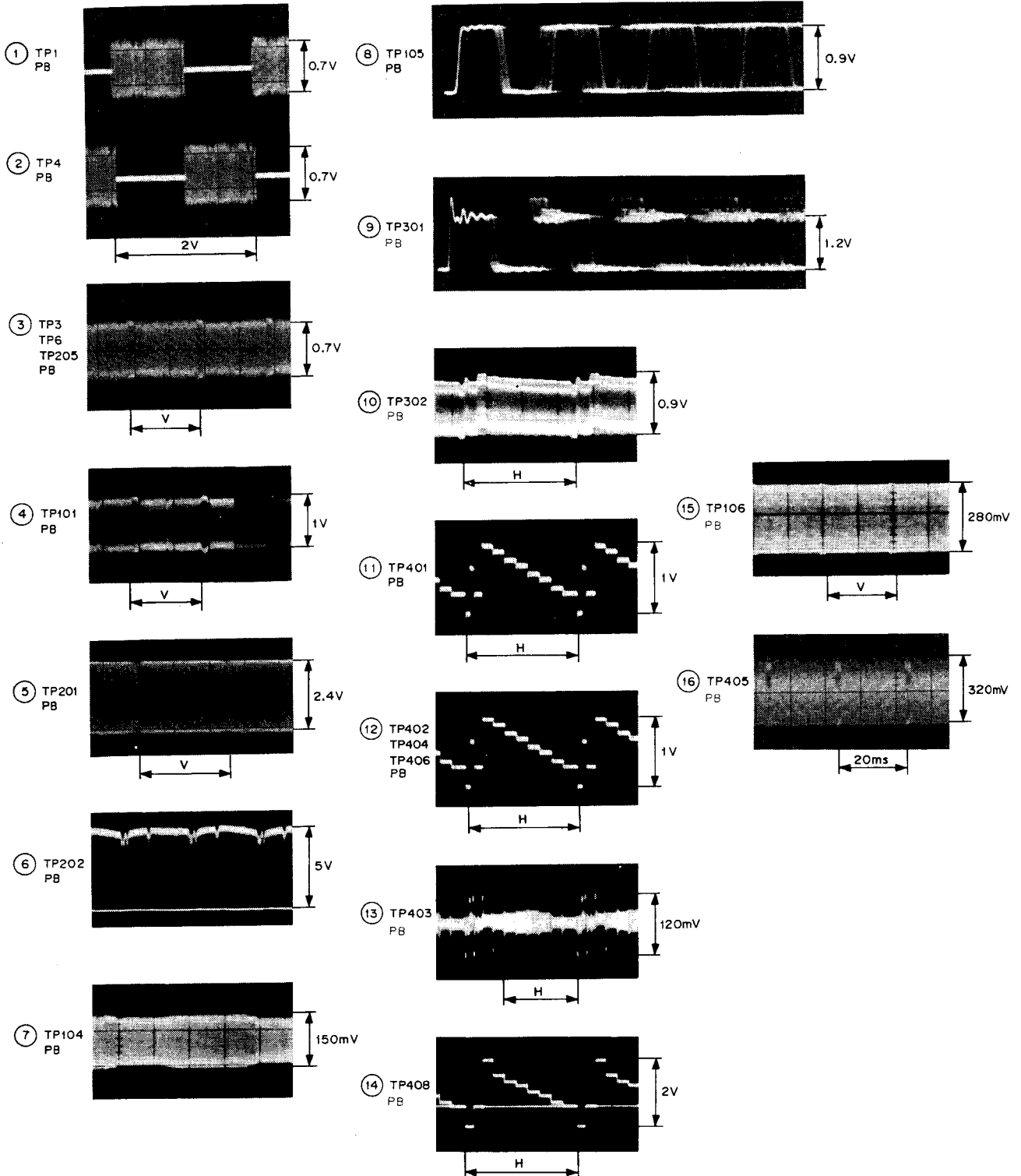
16-7 (b)

16-8 (b)



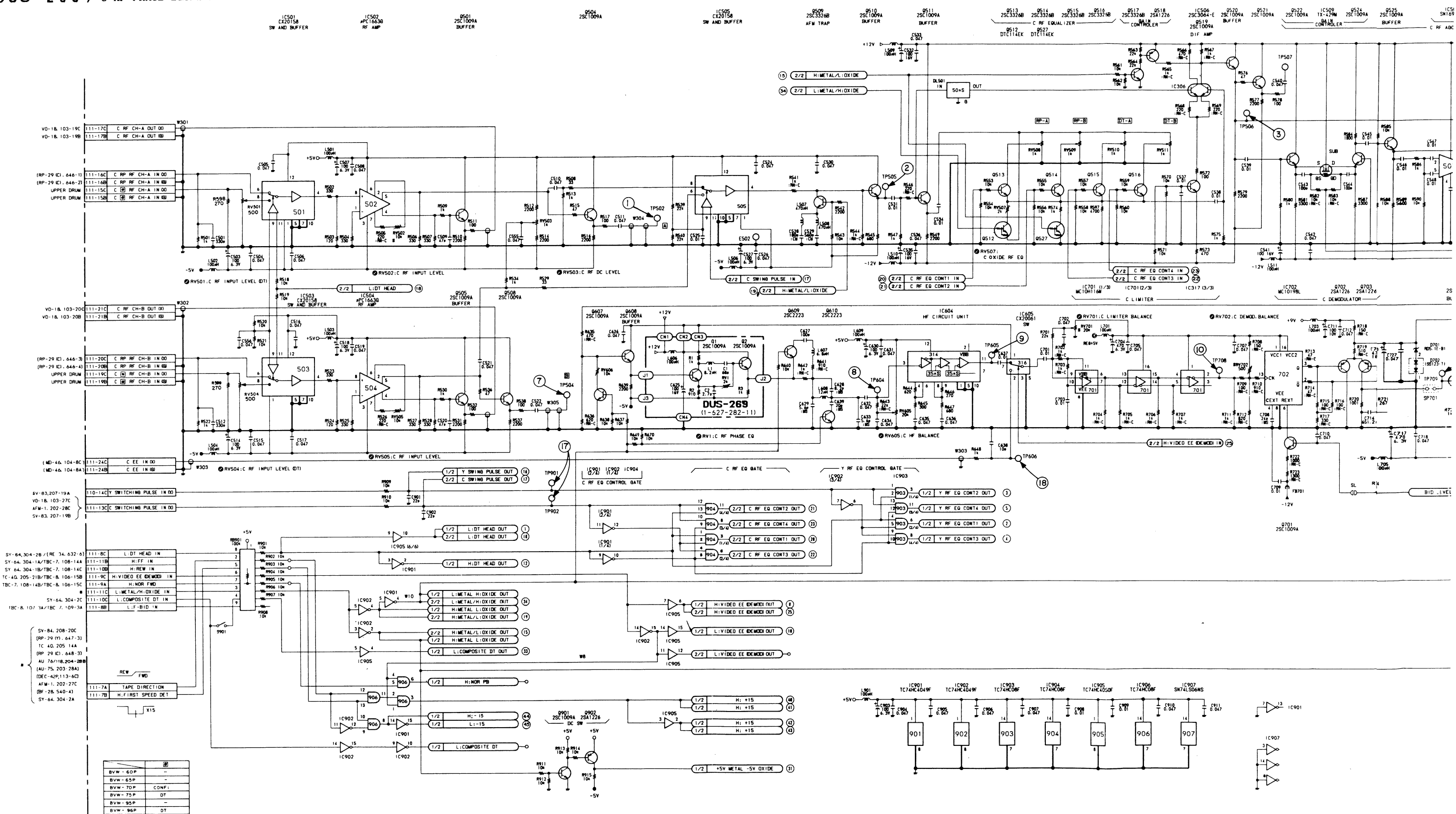






DM-56P (2/2); C DEMODULATOR  
DUS-259; METAL/OXIDE LPF SWITCH  
DUS-269; C RF PHASE EQUALIZER

S/N 10061 through 10191



16-15(a)

16-16(a)

A

B

C

D

E

F

G

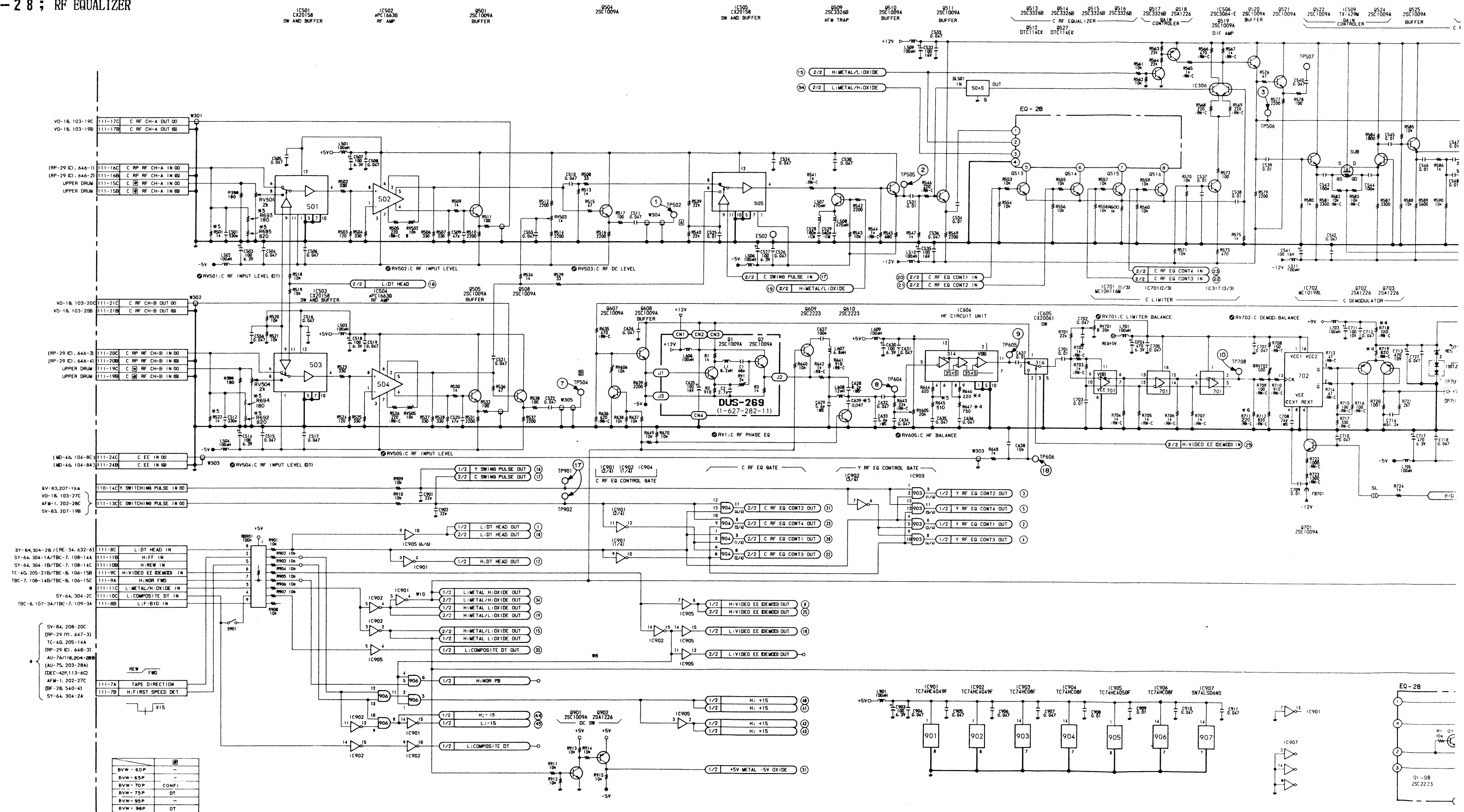
H



1-622-545-31  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

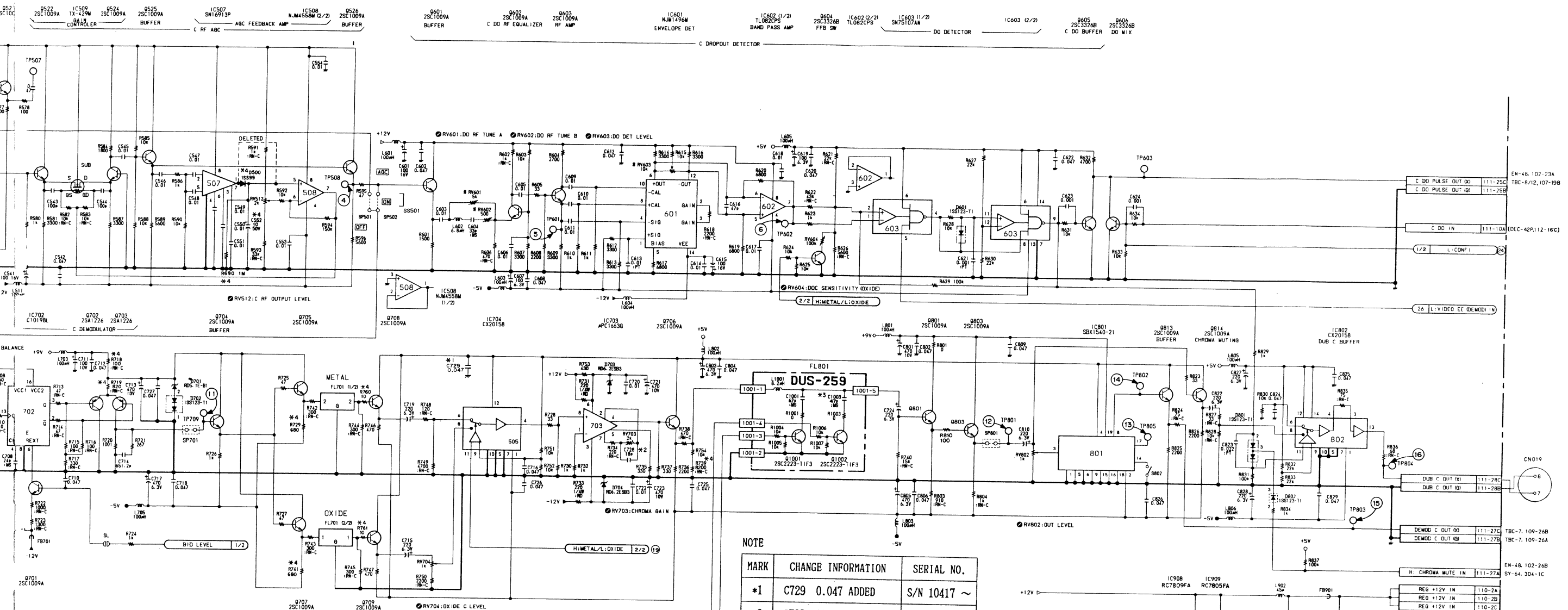
DM-56P (2/2); C DEMODULATOR  
 DUS-259; METAL/OXIDE LPF SWITCH  
 DUS-269; C RF PHASE EQUALIZER  
 EQ-28; RF EQUALIZER

S/N 10192 and higher



16-15(b)

16-16(b)



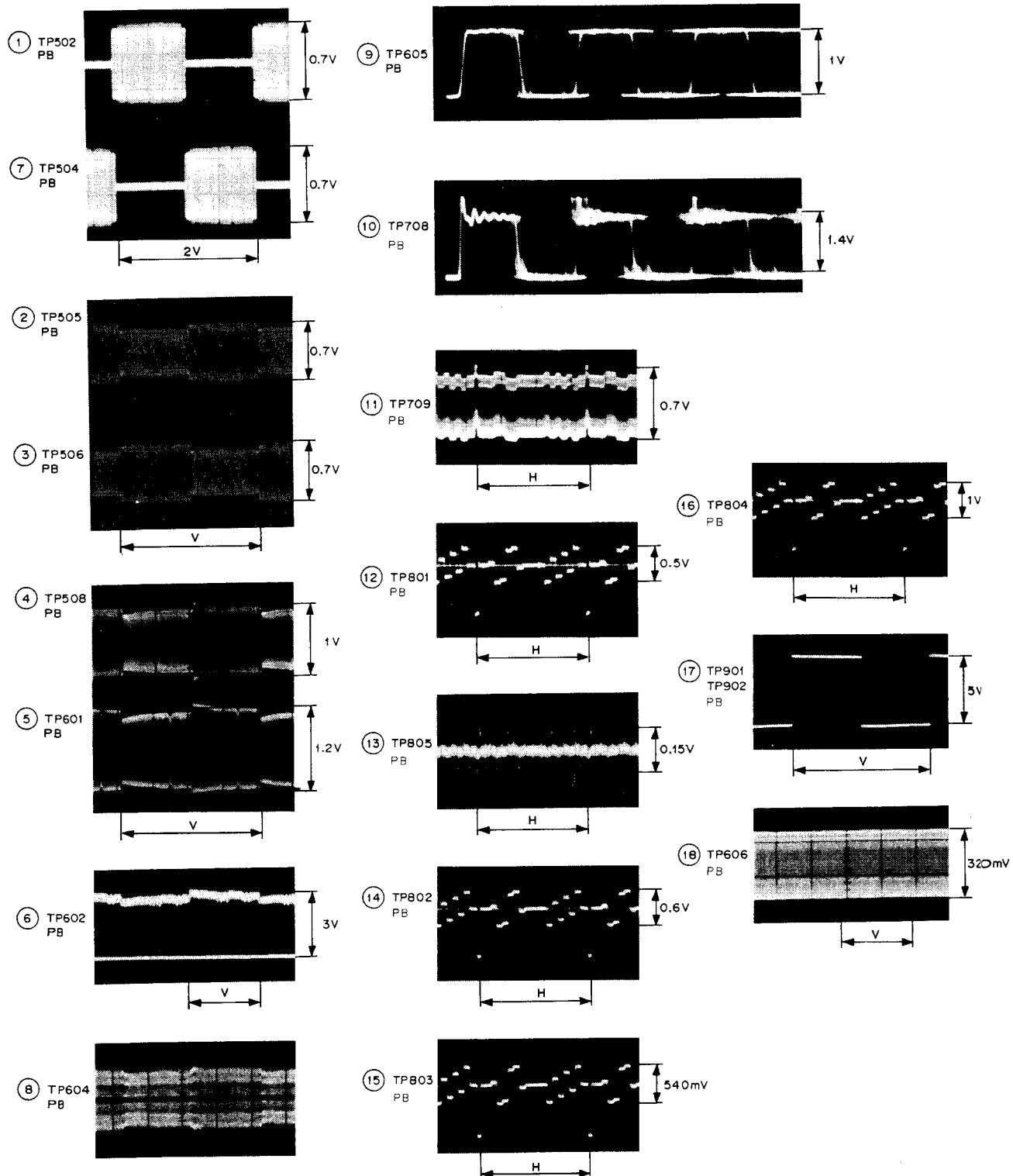
## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C729 0.047 ADDED	S/N 10417 ~
*2	C728 18pF DELETED	S/N 10575 ~
*3	C1003 39pF → 47pF	S/N 10770 ~
*4	C552 47/10V → 10/50V D500 1SS99-1 ADDED R646 270 → 220 R647 680 → 750 R690 1M ADDED R718 150 → 100 R719 510 → 820 R729 470 → 680 R739 1.5k → 8.2k R741 470 → 680 R760 10 ADDED R761 10 ADDED	S/N 11340 ~
*5	DELETED R501, R522 ADDED R692, R693, R694, R695 CHANGE C639 20pF → 0.047 R645 390 → 510	S/N 11472 ~
*6	R711 1k → 220	S/N 12302 ~

[ ] ; RECORDER ONLY  
[ ] ; DT PLAYER ONLY

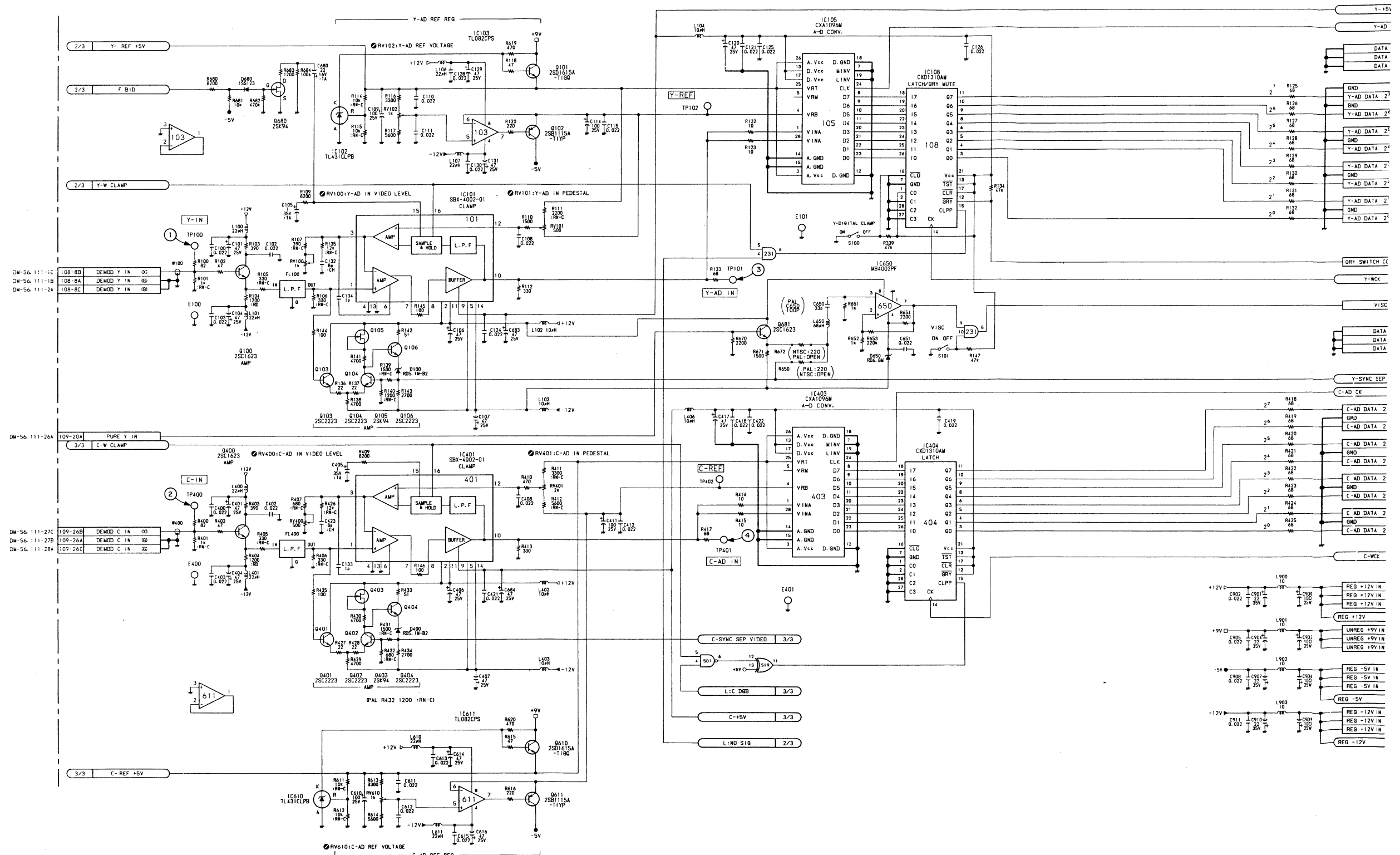
**DM-56P (2/2)**  
1-622-545-31, 32, 33, 34  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P





TBC-7P (1/3) ; A/D CONVERTER

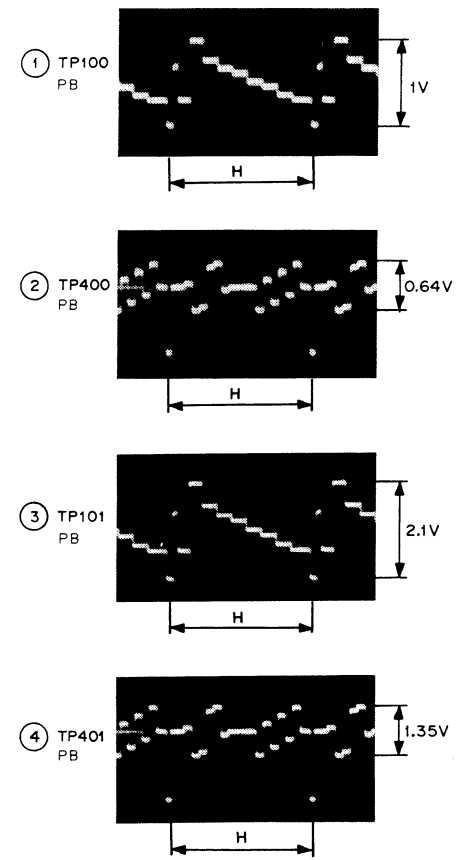
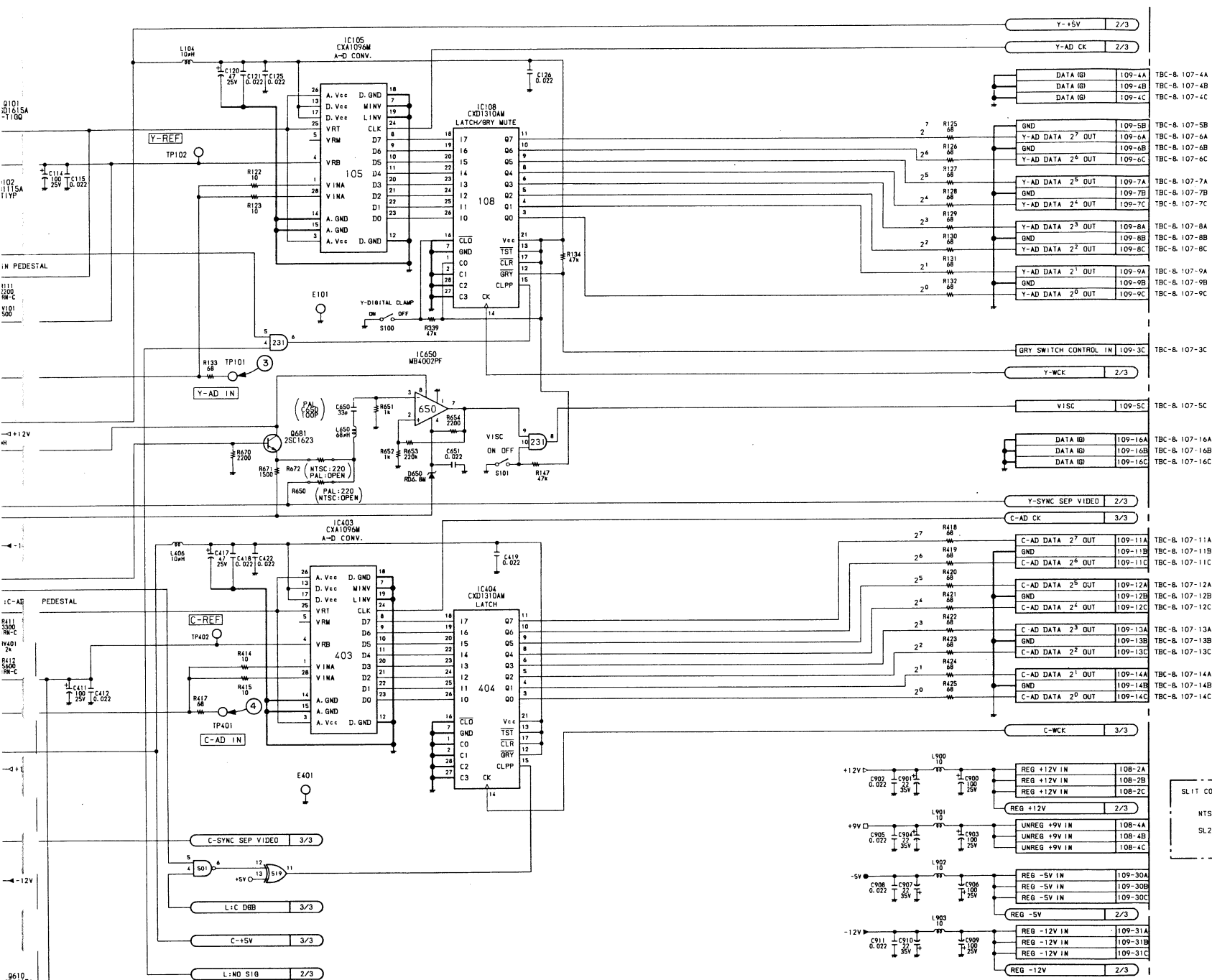
S/N 10061 through 10191



16-22 (a)

16-23 (a)





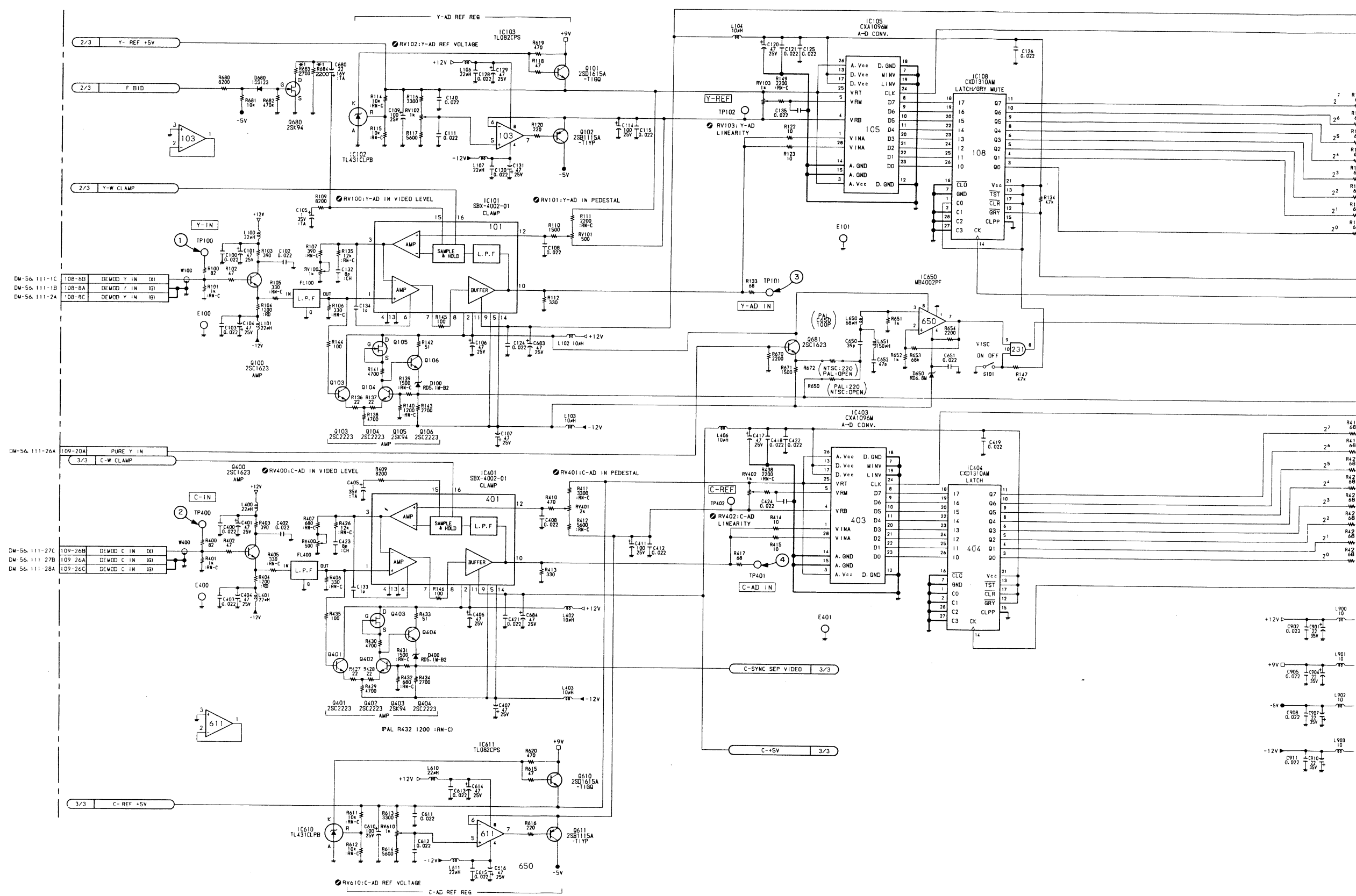
TBC-7P (1/3)

1-622-548-12  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

SLIT CONFIGURATION (SHORT)			
NTSC	PAL		
SL205	SL200		
	SL505		

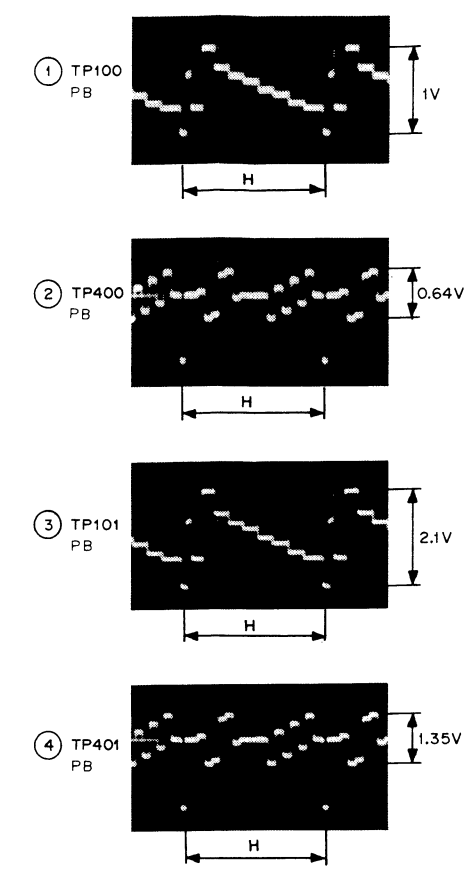
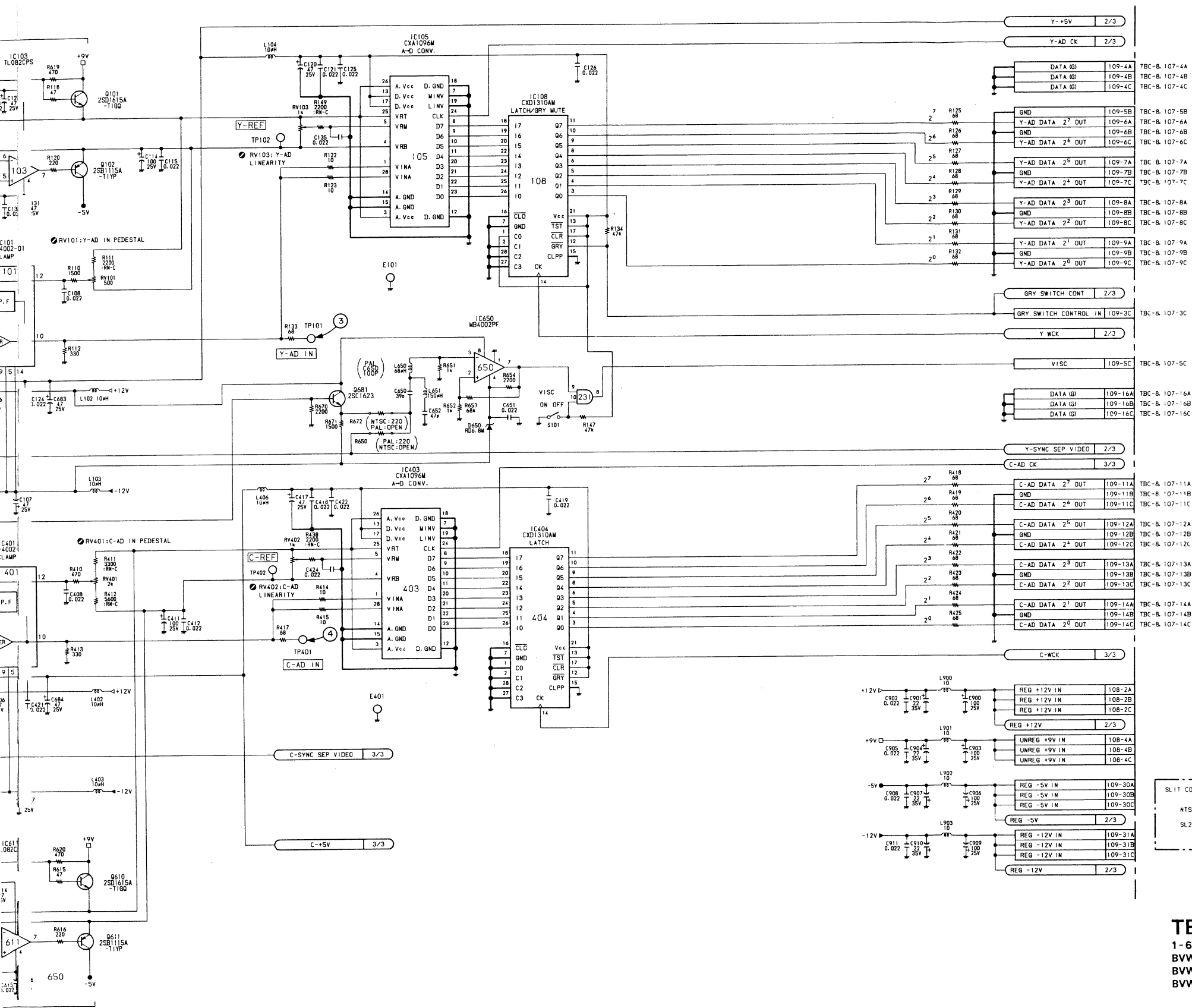
## TBC-7P (1/3); A/D CONVERTER

S/N 10192 through 10769



16-22 (b)

16-23 (b)



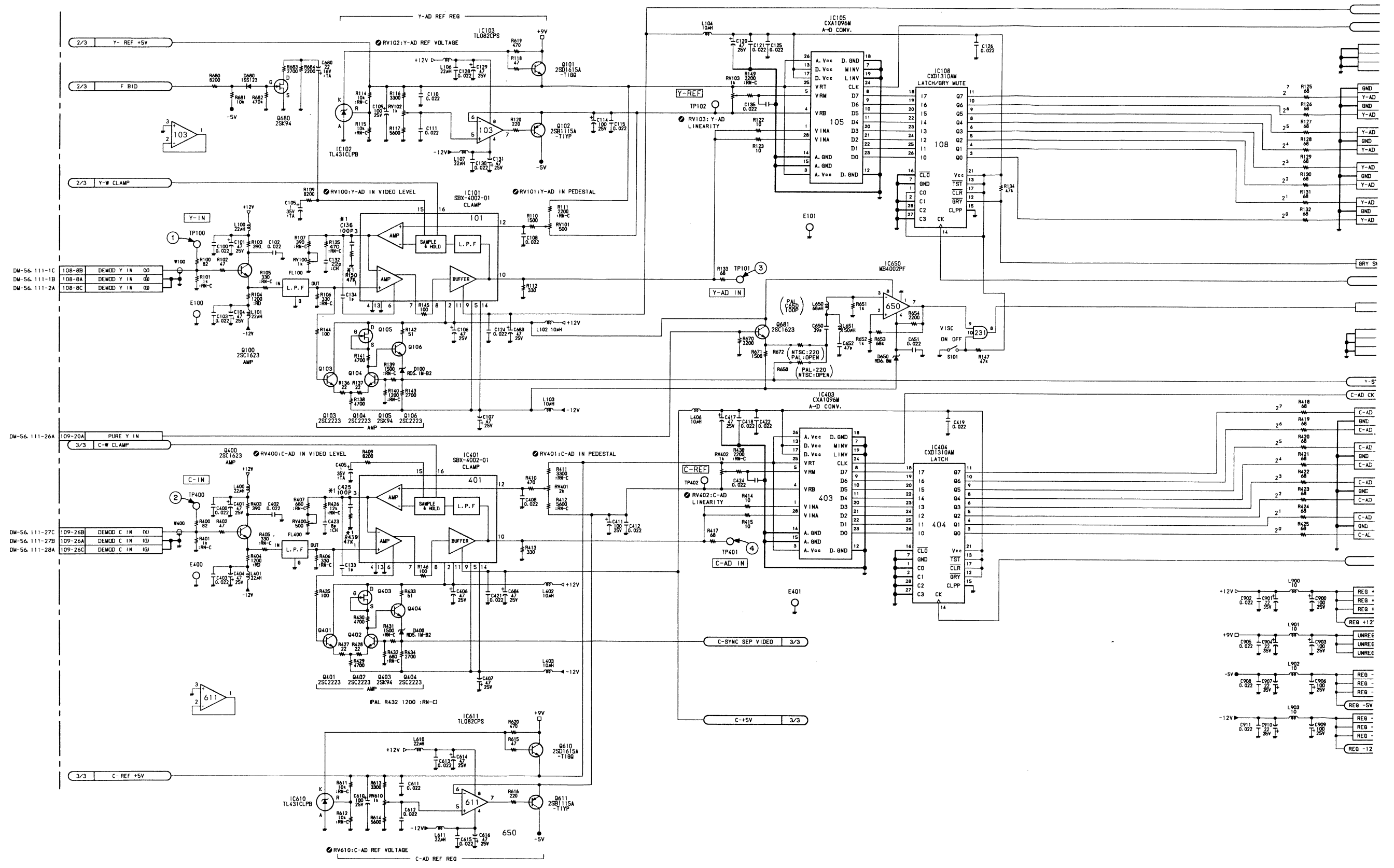
**TBC-7P (1/3)**  
 1-622-548-13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

TBC-7D (1/3) ; A/D CONVERTER

S/N 10770 and higher

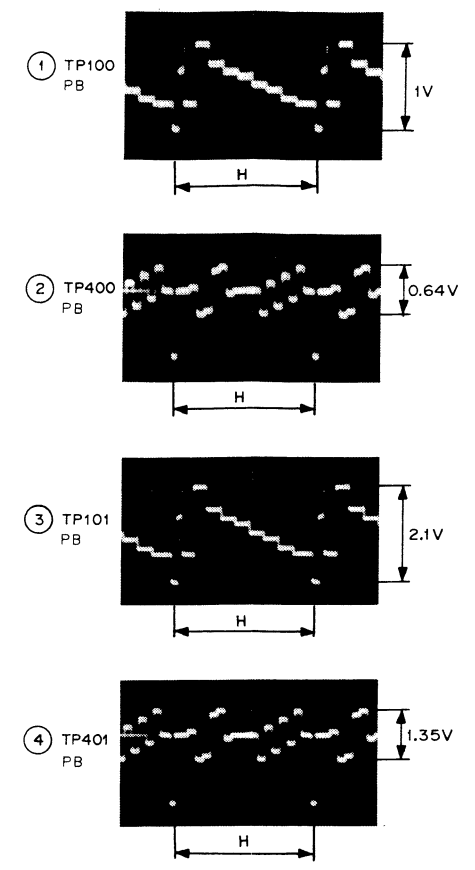
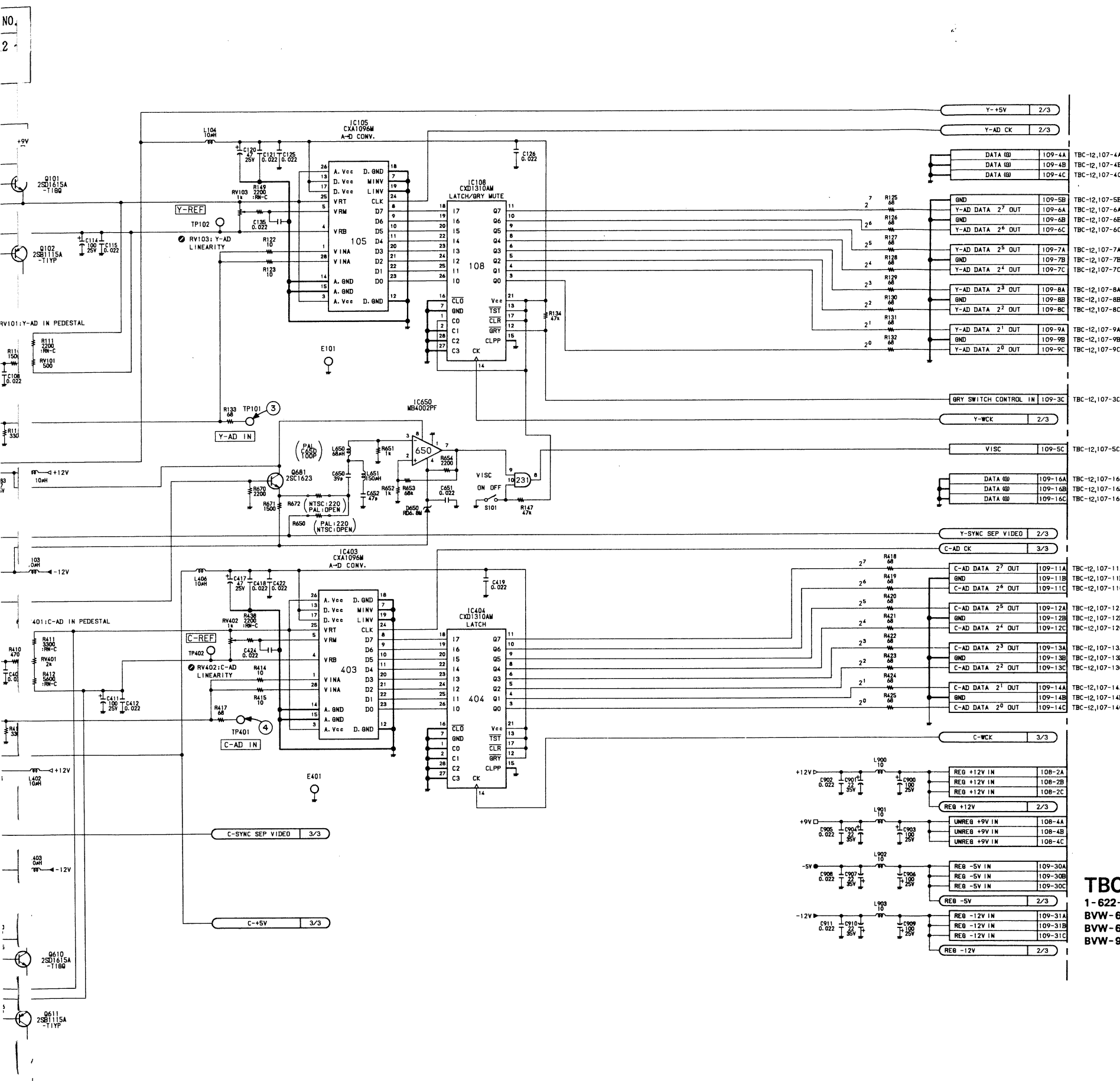
NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	ADDED C136, C425, R150 R439	S/N 12112 ~

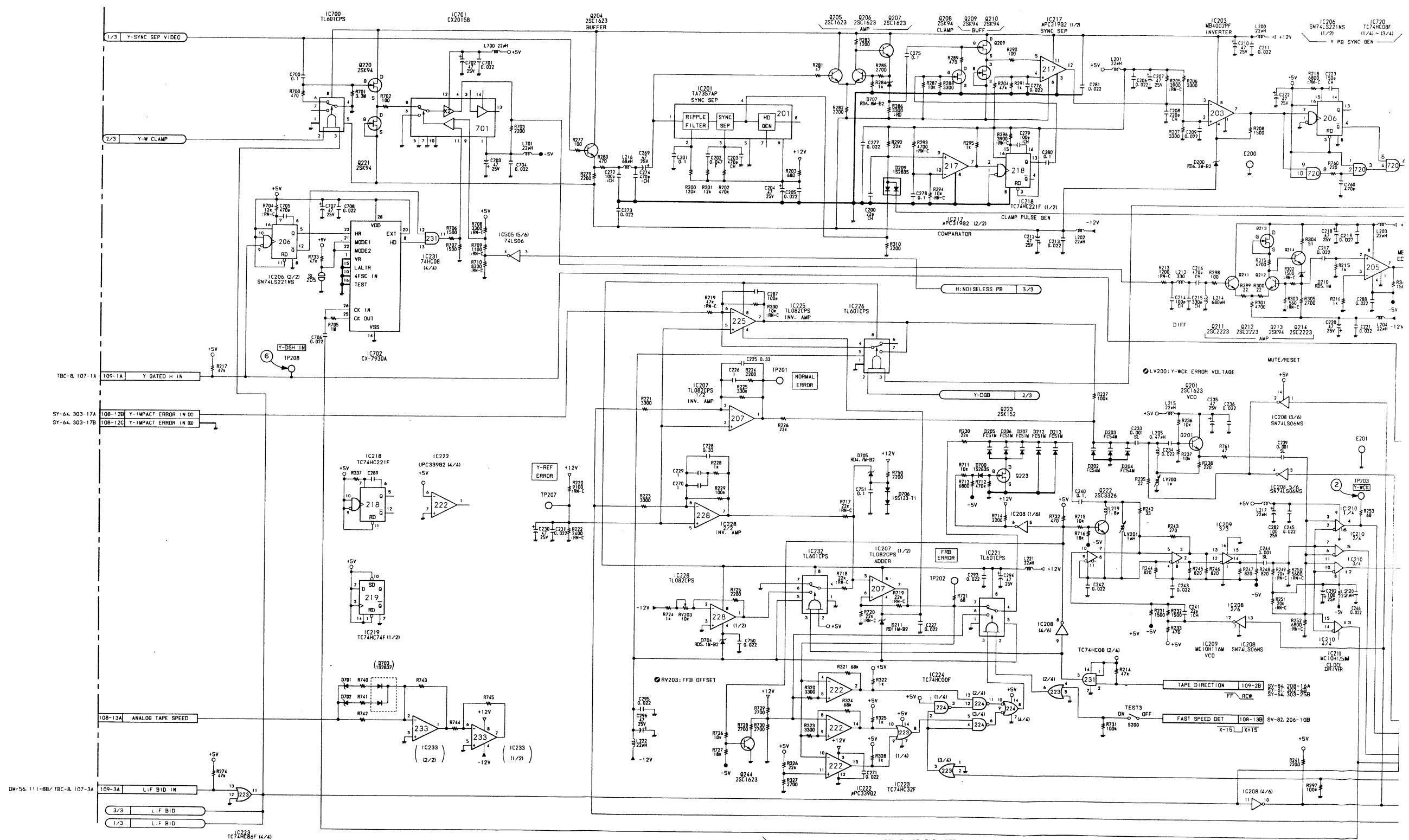


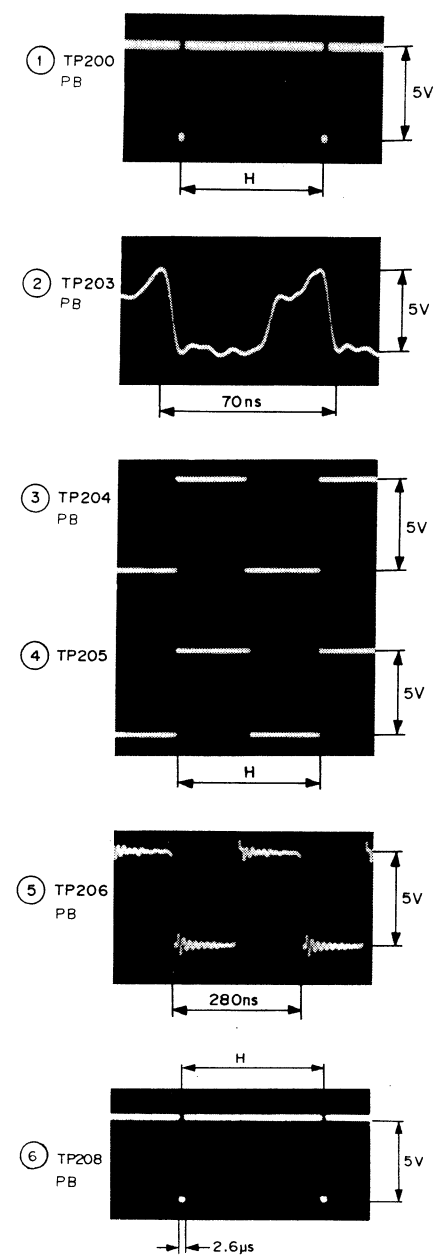
16-22 (c)

16-23 (c)



**TBC-7D(1/3)**  
1-622-548-14, 15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P





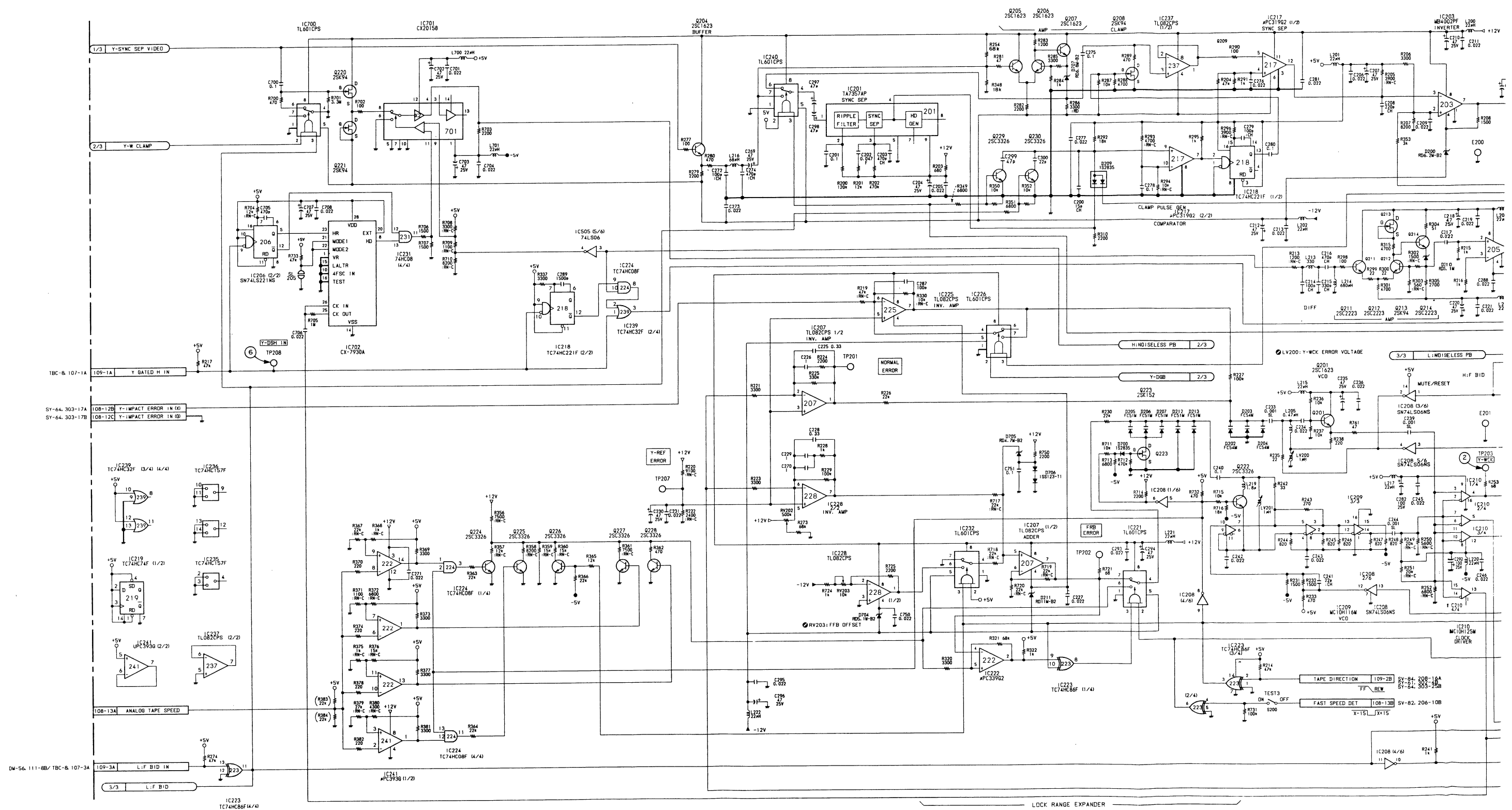
16-31 (a)

16-32 (a)

**TBC-7P(2/3)**

1-622-548-12  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

(( )) ;DT PLAYER ONLY



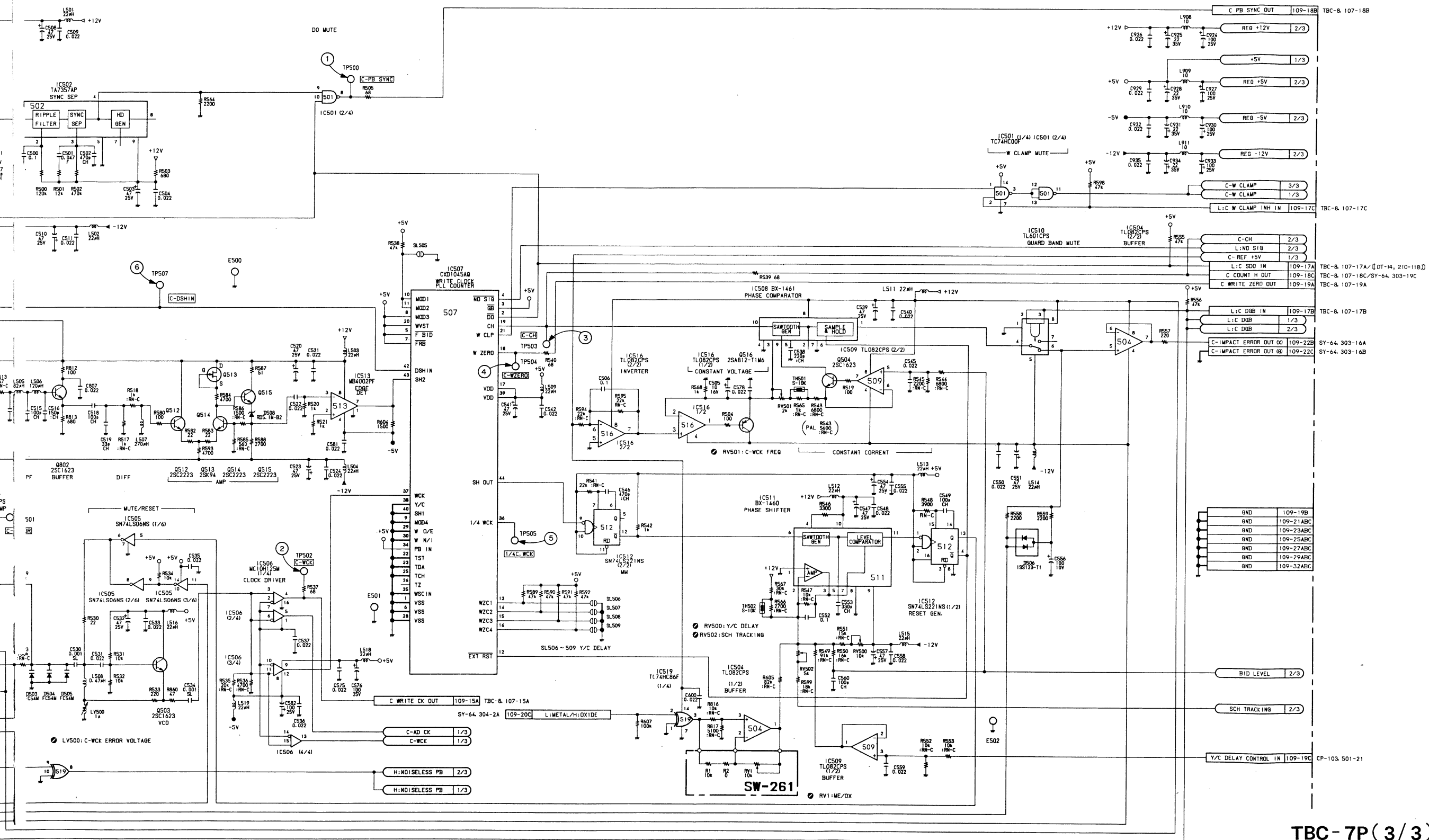












TBC-7P (3/3)

1-622-548-12  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

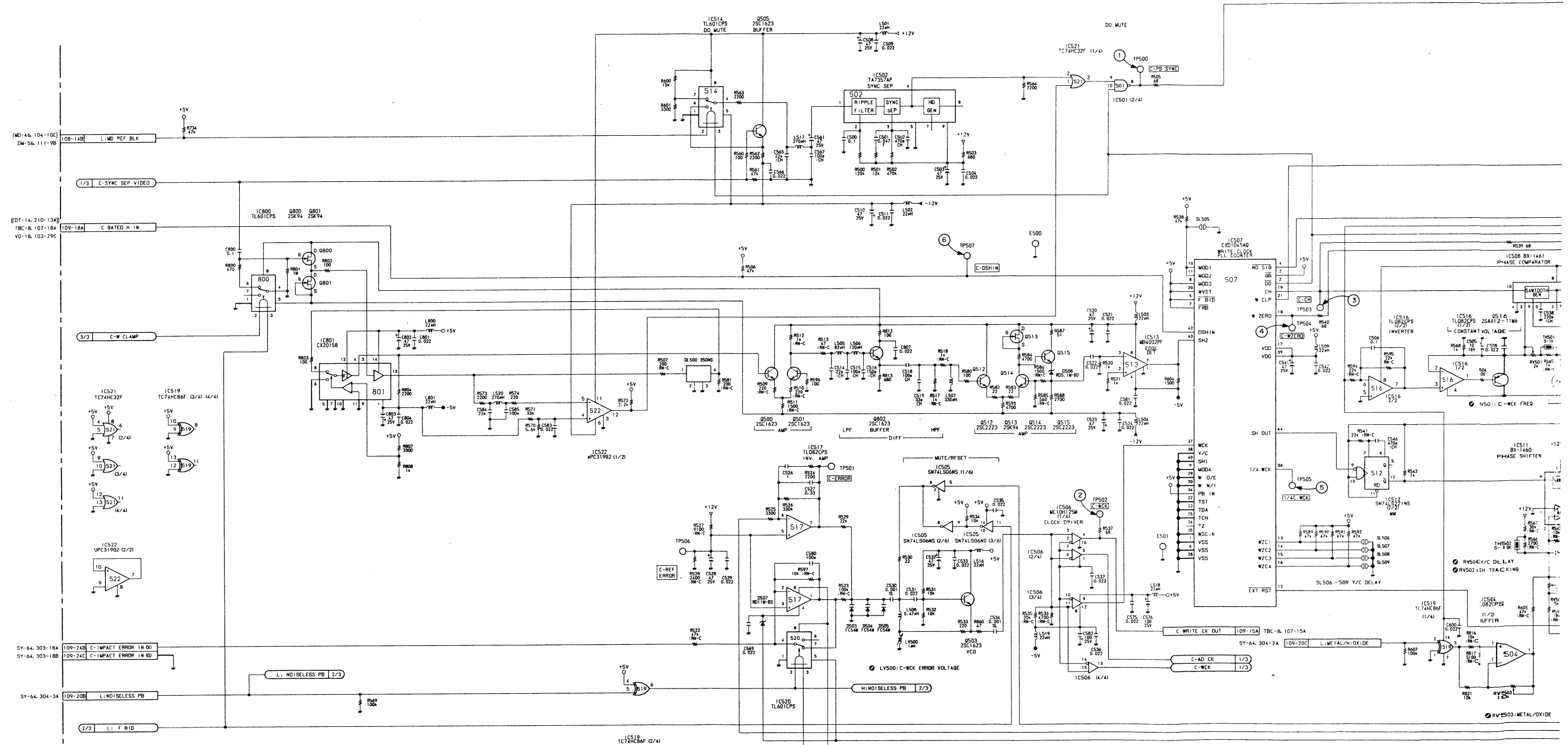
( ) ; RECORDER ONLY  
 ( ) ; DT PLAYER ONLY

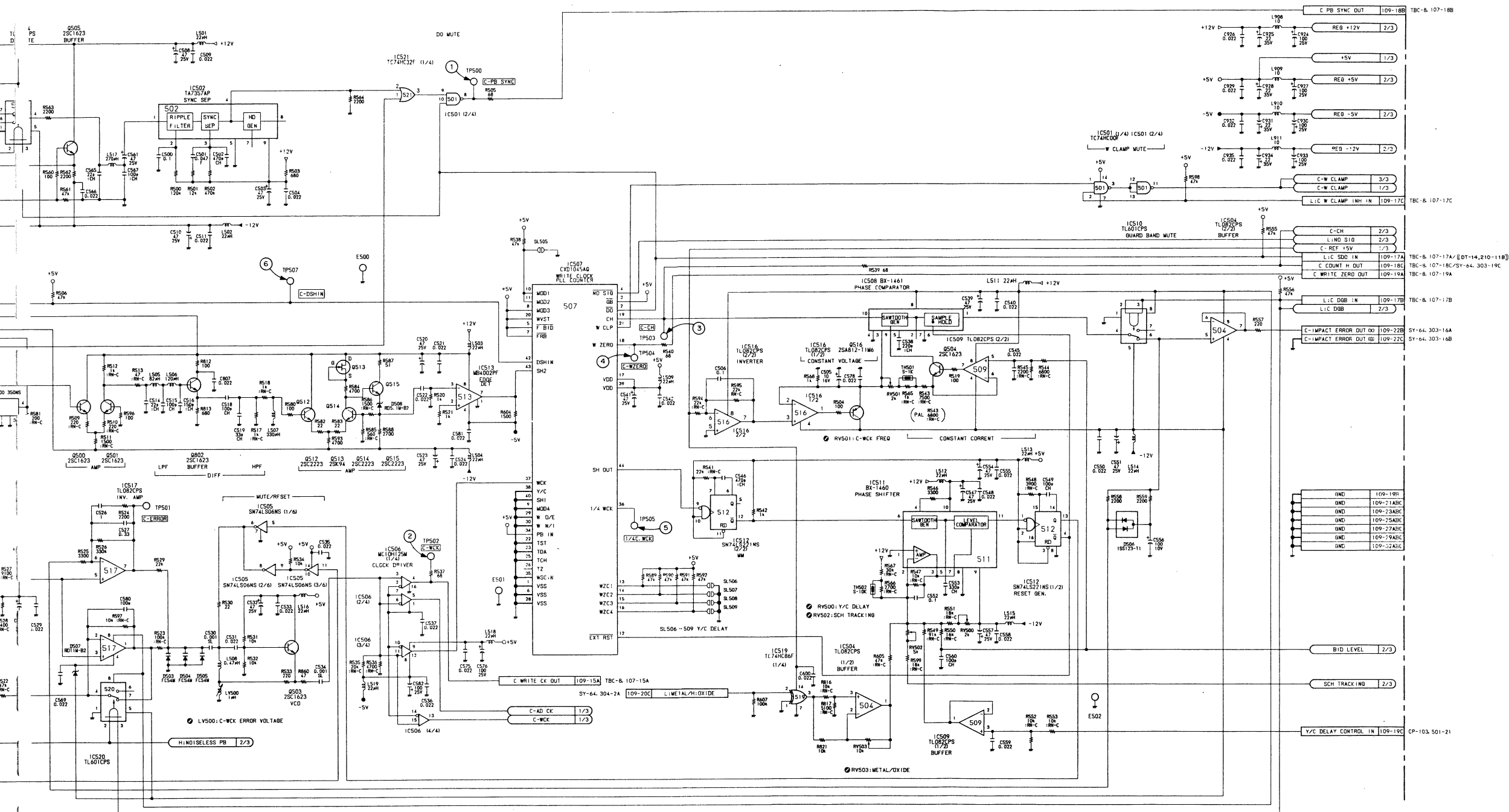
16-37 (a)

16-38 (a)

TBC-7P (3/3) ; C WRITE CLOCK GENERATOR

S/N 10192 through 10769


$$\left. \begin{array}{l} \text{)} ; R \\ \text{)} ; D \end{array} \right\}$$



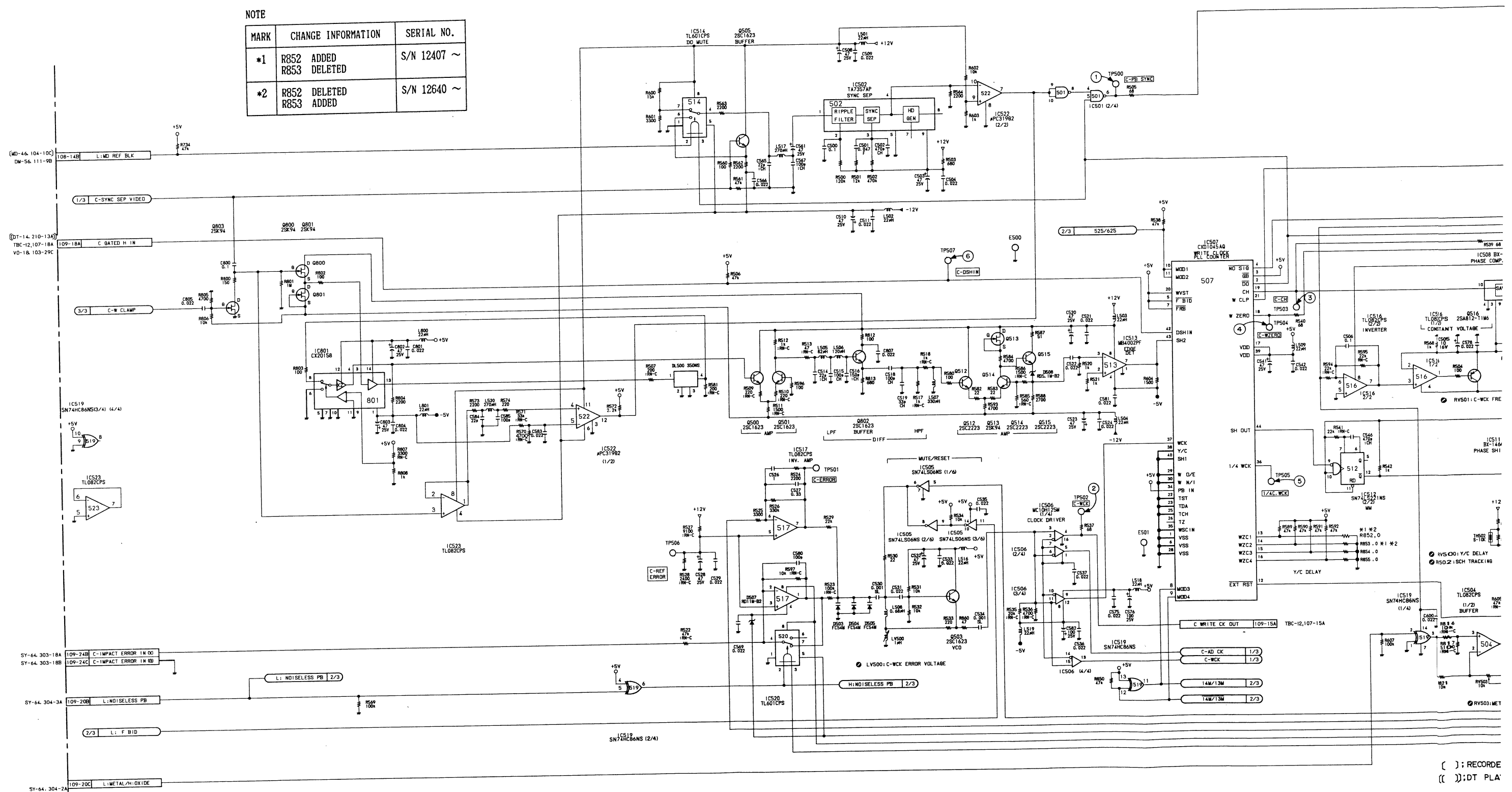
( ) ; RECORDER ONLY  
 ( ) ; DT PLAYER ONLY

**TBC-7P (3/3)**  
 1-622-548-13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

TBC-7D (3/3) ; C WRITE CLOCK GENERATOR

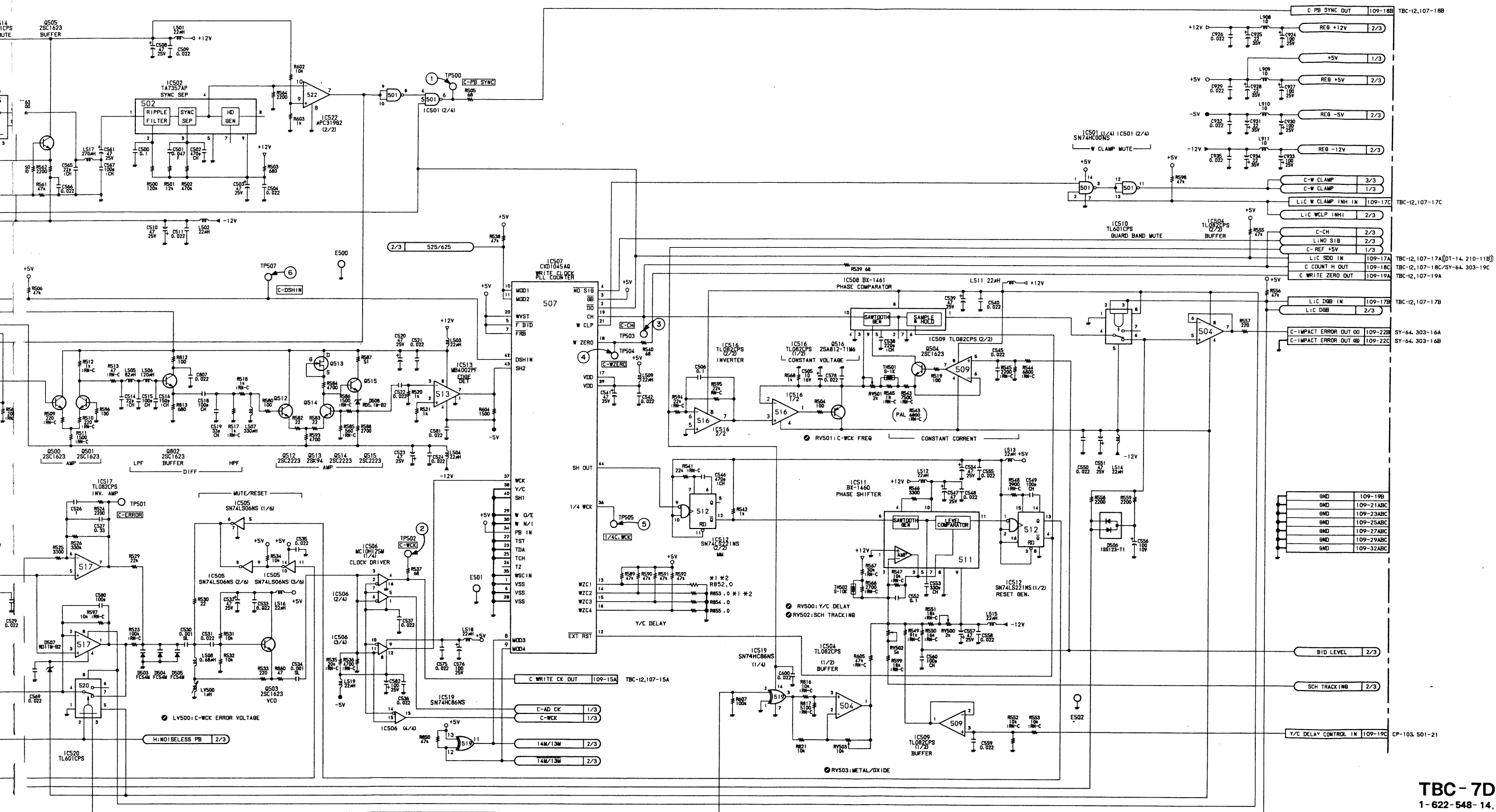
S/N 10770 and higher

NOTE		
MARK	CHANGE INFORMATION	SERIAL NO.
*1	R852 ADDED R853 DELETED	S/N 12407 ~
*2	R852 DELETED R853 ADDED	S/N 12640 ~

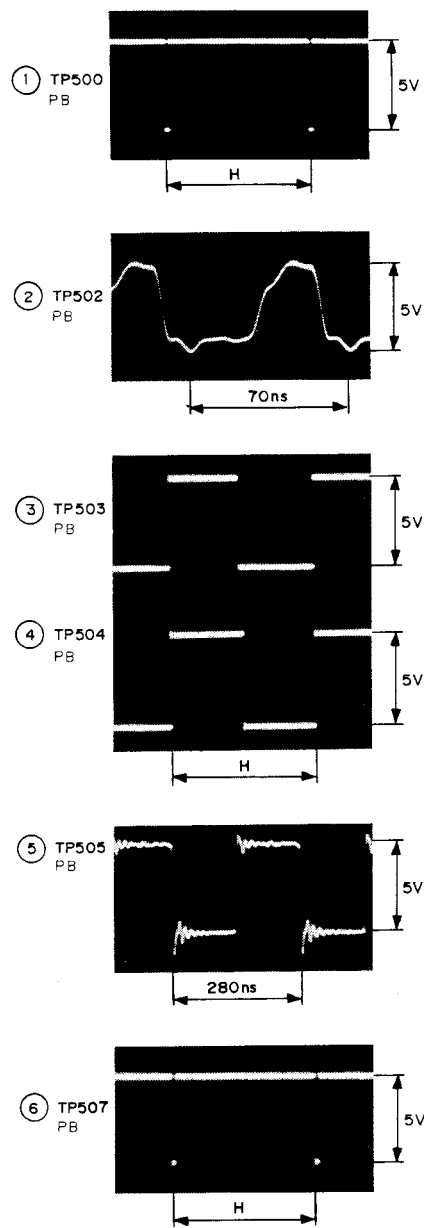


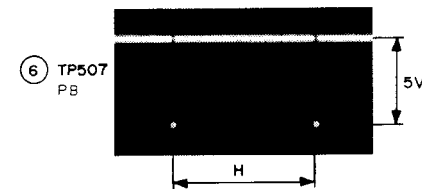
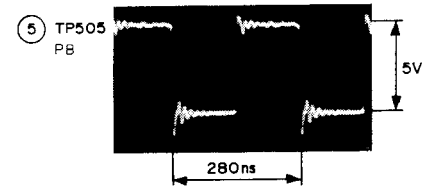
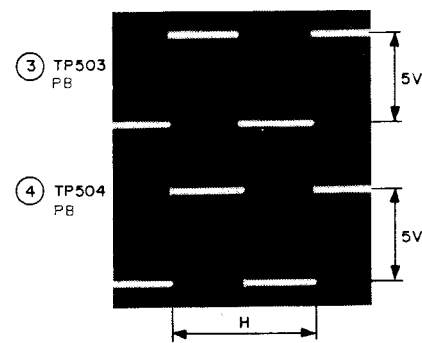
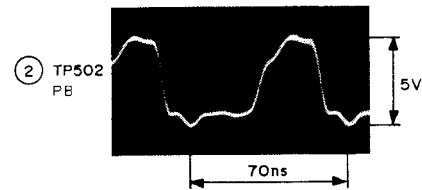
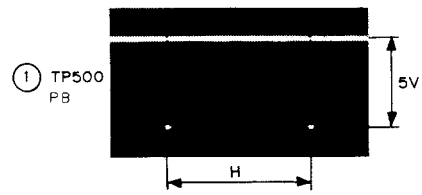
```
[ ] ; RECORDE
[[ ]] ; DT PLA'
```

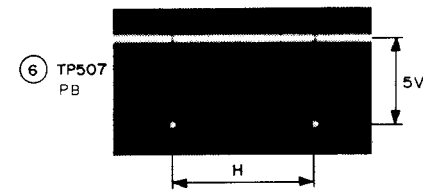
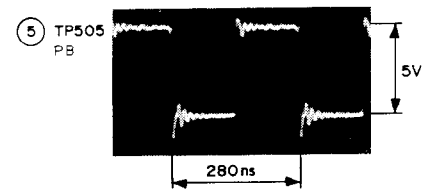
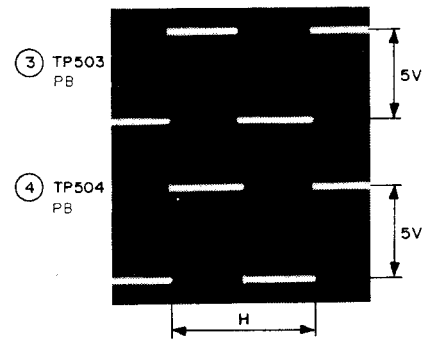
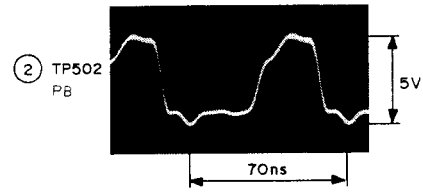
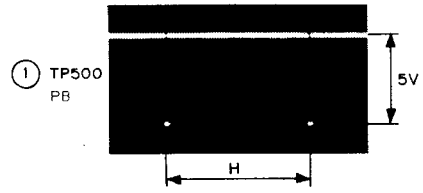




**TBC-7D(3/3)**  
 1-622-548-14, 15  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

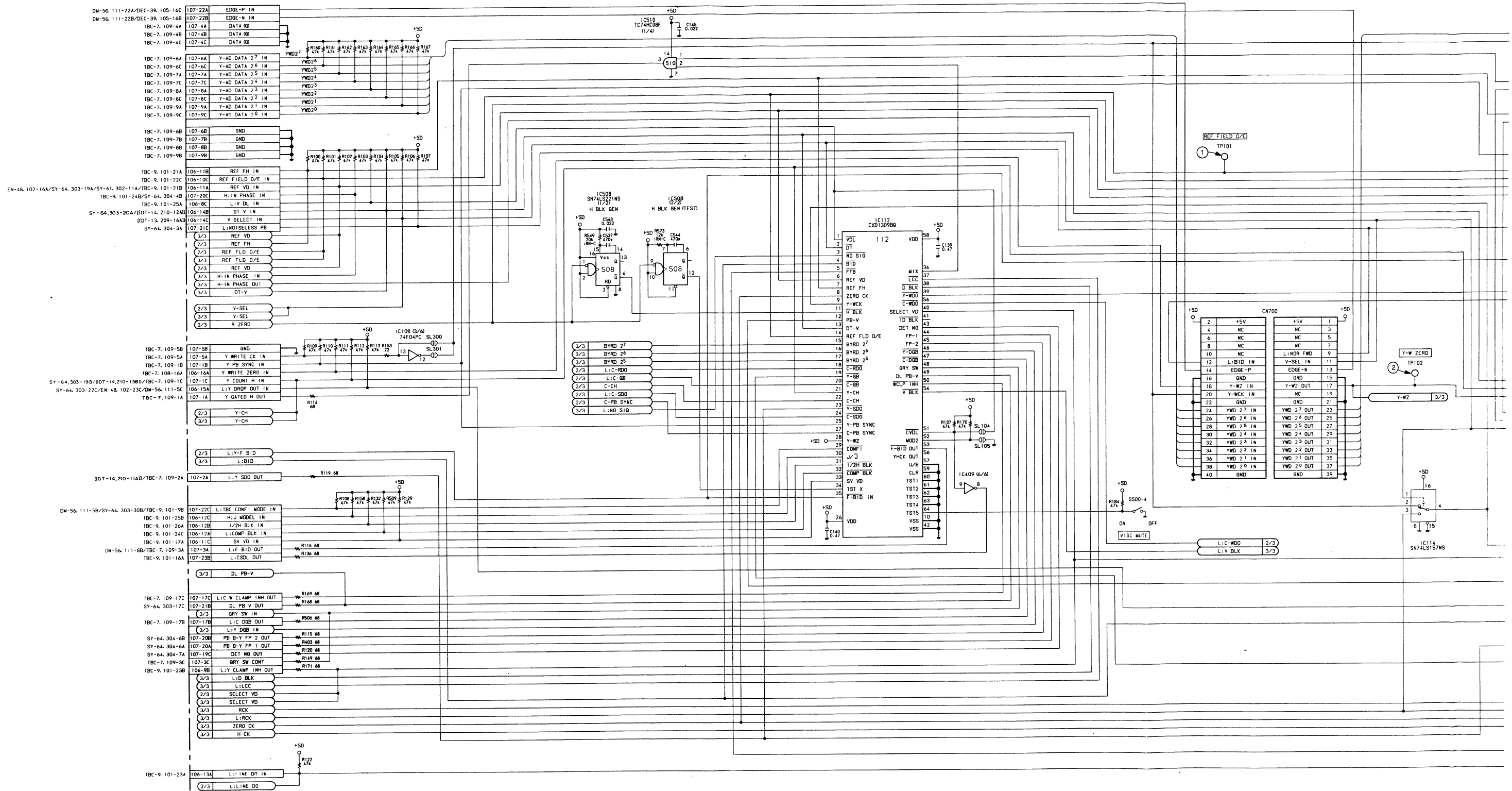






TBC-8P (1/3); Y MAIN MEMORY

S/N 10061 through 10416



16-43 (a)

16-44 (a)

A

B

C

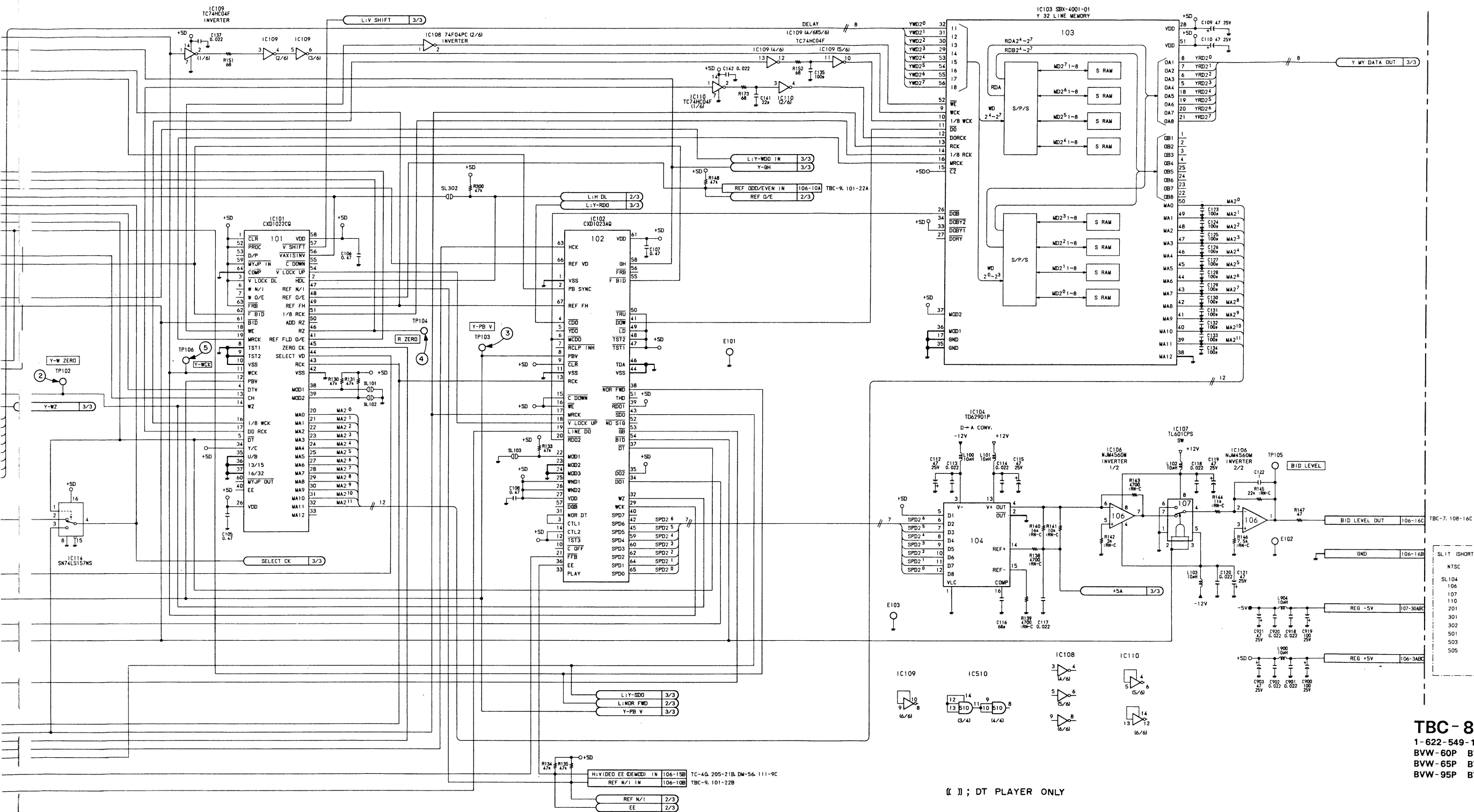
D

E

F

G

H



**TBC-8P( 1 / 3 )**

1-622-549-14

BVW-60P BVW-70P

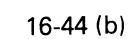
BVW-60P    BVW-70P  
BVW-65P    BVW-75P

BVW-85P    BVW-75P  
BVW-95P    BVW-96P

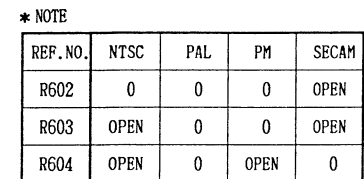
BVW=95P    BVW=96P

( ) ; DT PLAYER ONLY

S/N 10417 through 10769



H



**TBC-8P (1/3)**  
1-622-549-15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

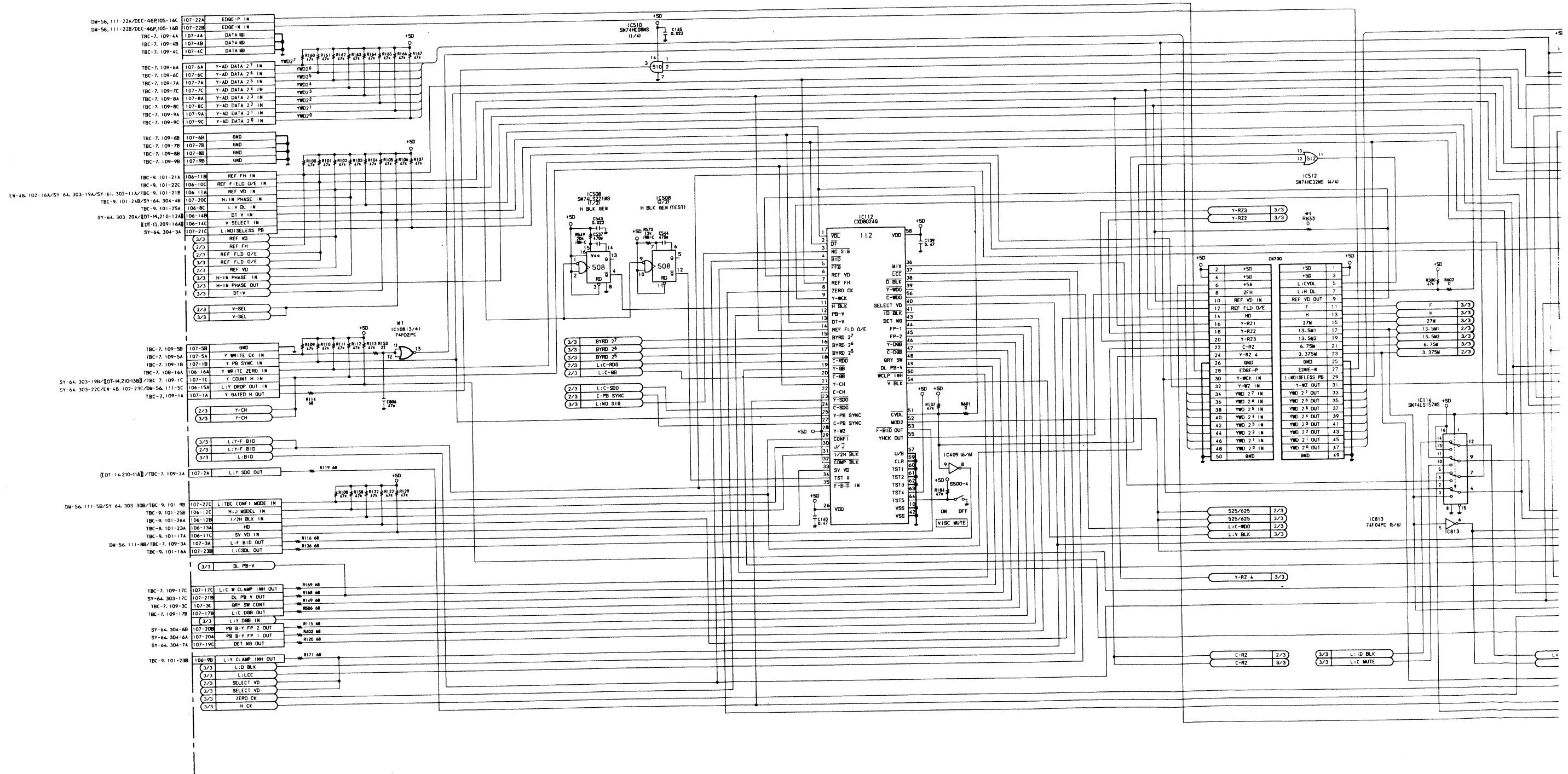


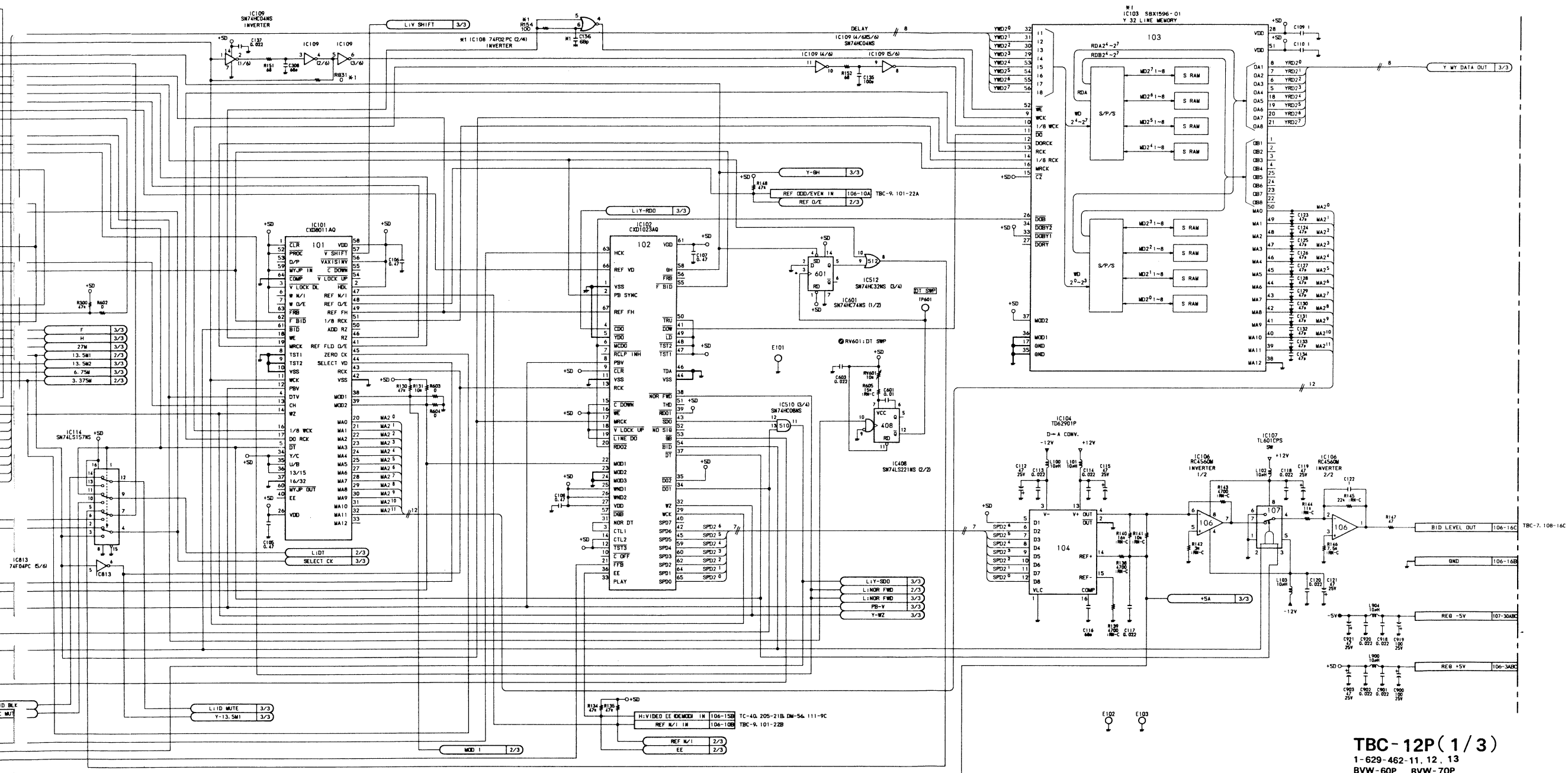
TBC-12P (1/3) ; Y MAIN MEMORY

S/N 10713 and higher

## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	ADDED C136, R154, R831 R833 CHANGED IC103 SBX4001-01 → SBX1596-01 IC108 74F04PC → 74F02PC	S/N 12177 ~

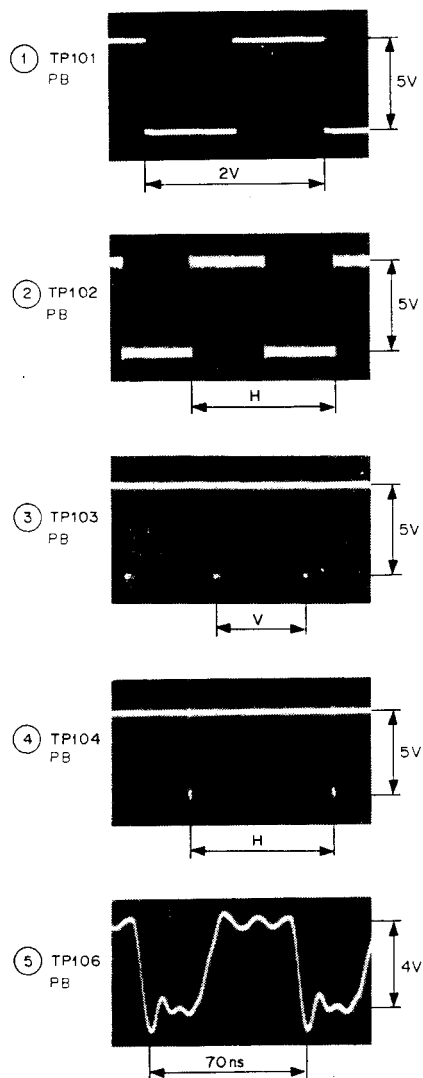


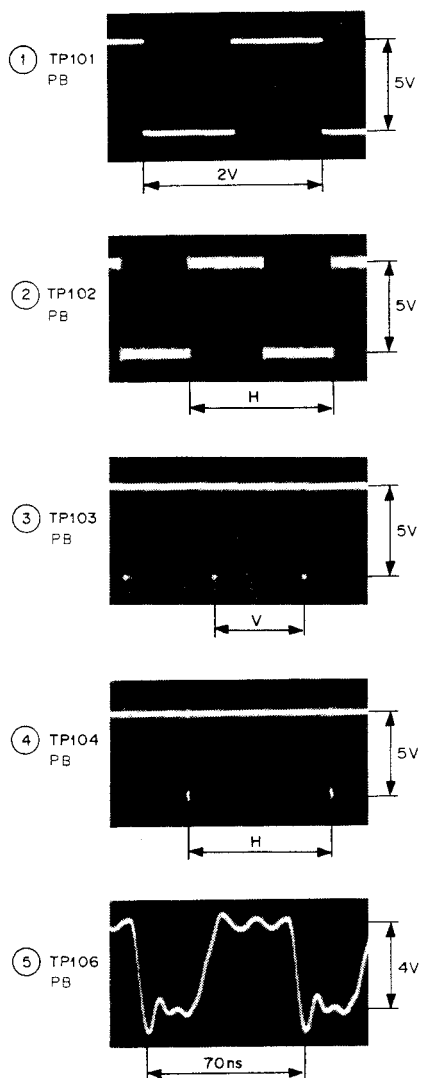


TBC-12P (1/3)

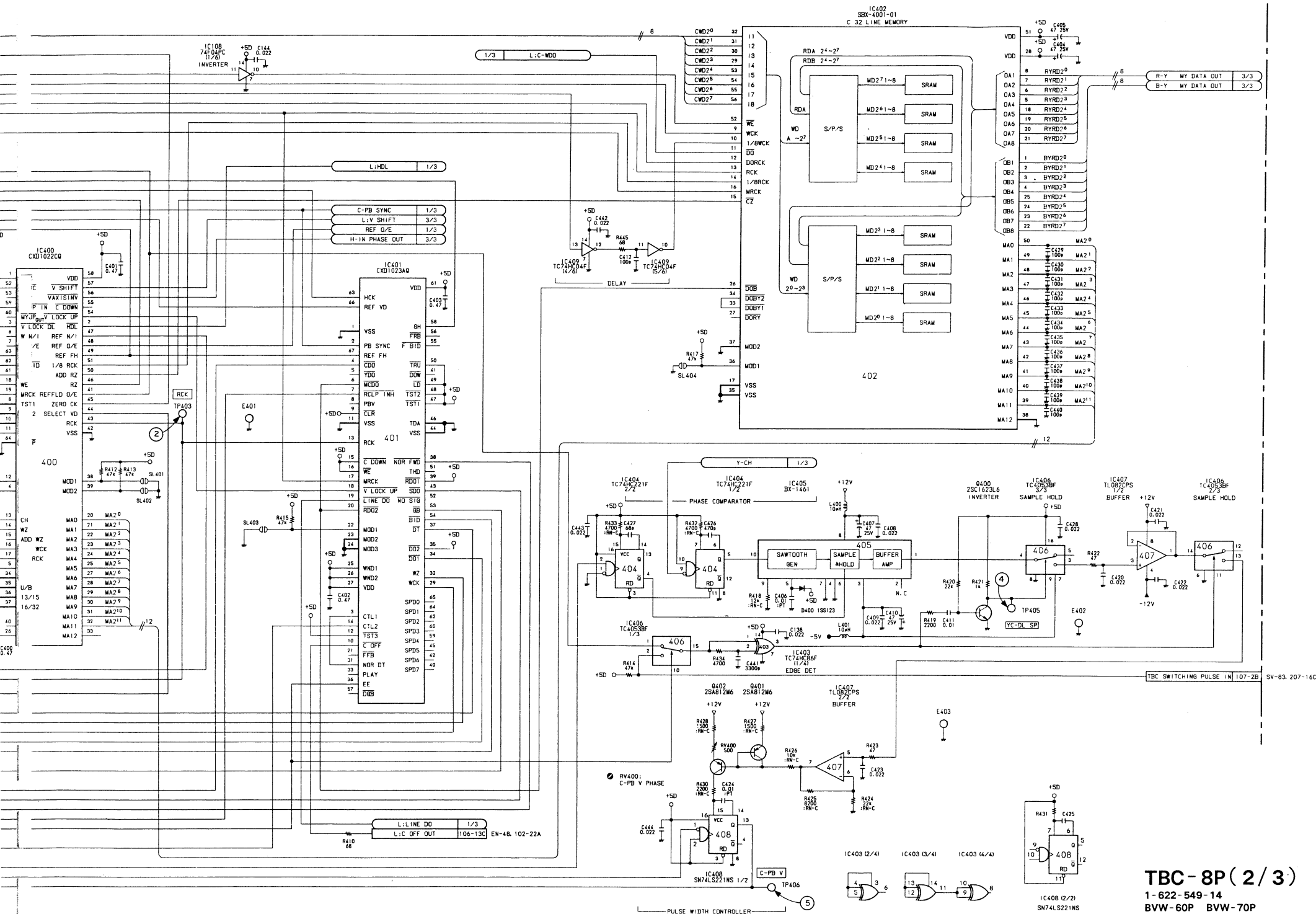
1-629-462-11, 12, 13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

(( )) ; DT PLAYER ONLY

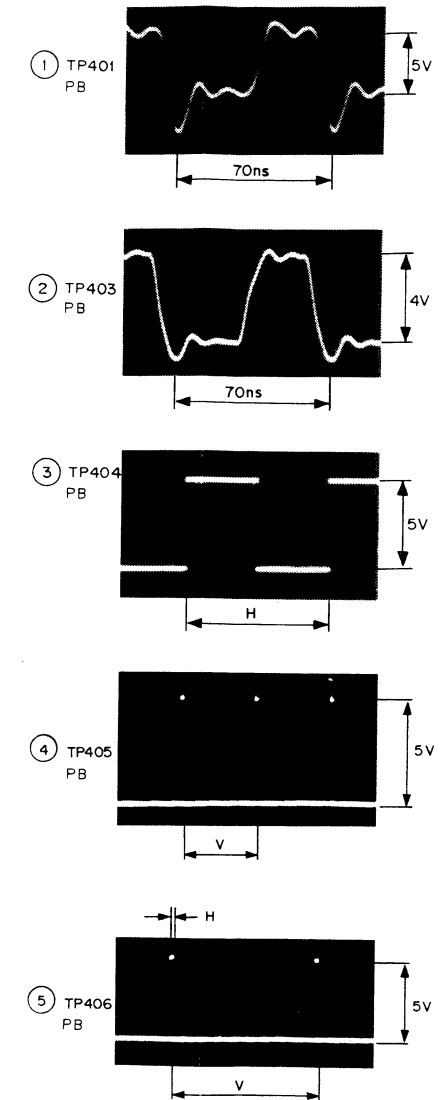








DT PLAYER ONLY

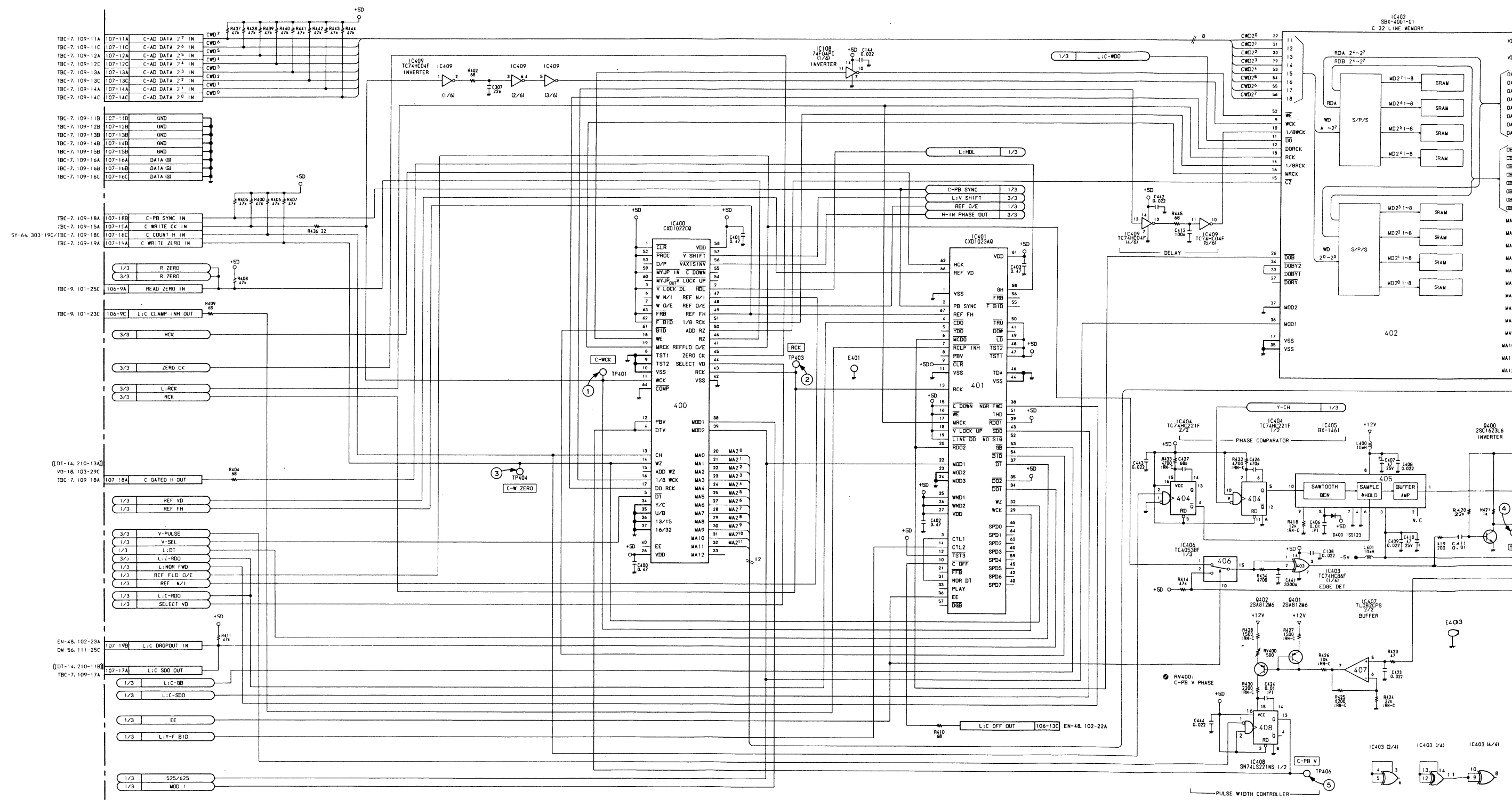


TBC-8P (2/3)

1-622-549-14  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

## TBC-8P (2/3) ; C MAIN MEMORY

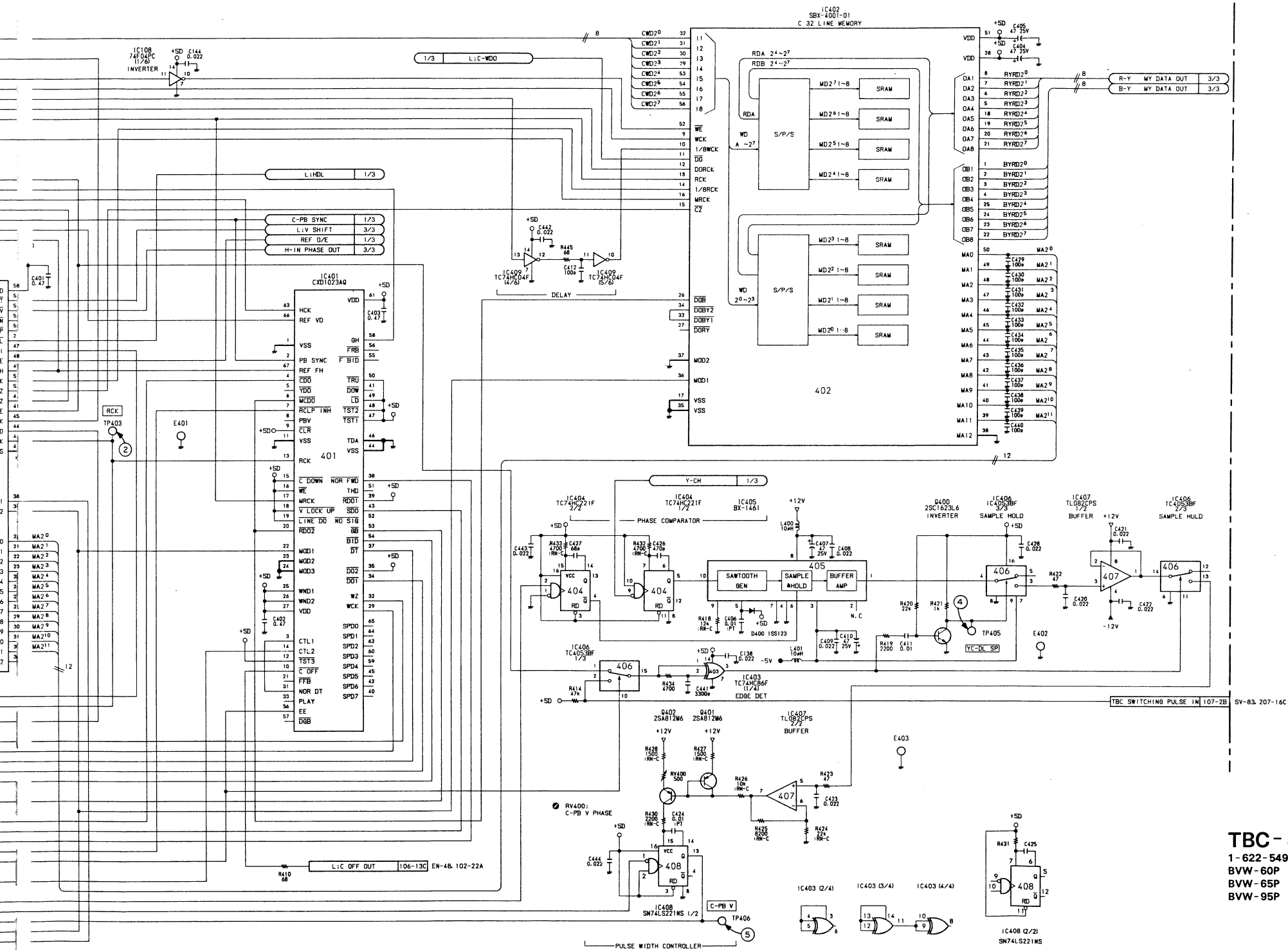
S/N 10417 through 10769



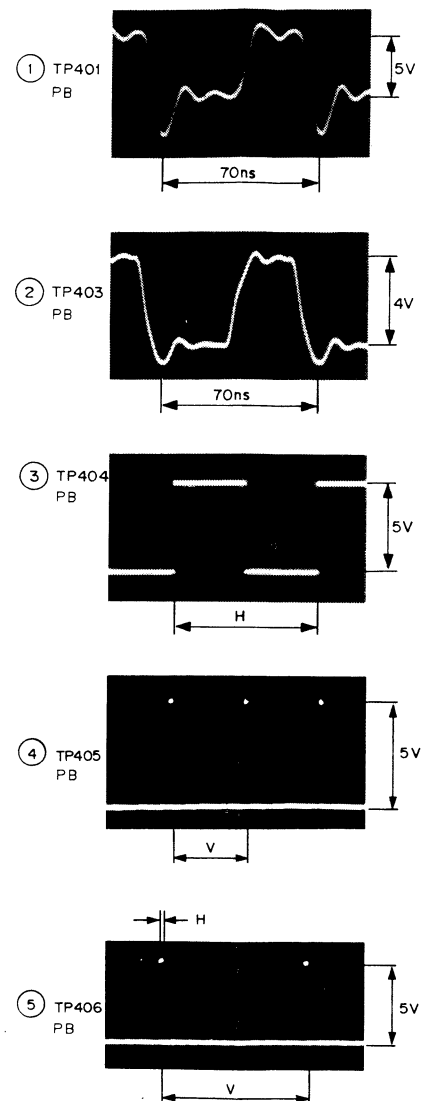
(( )) ; DT PLAYER ONLY

16-50 (b)

16-51 (b)



[[ ]]; DT PLAYER ONLY



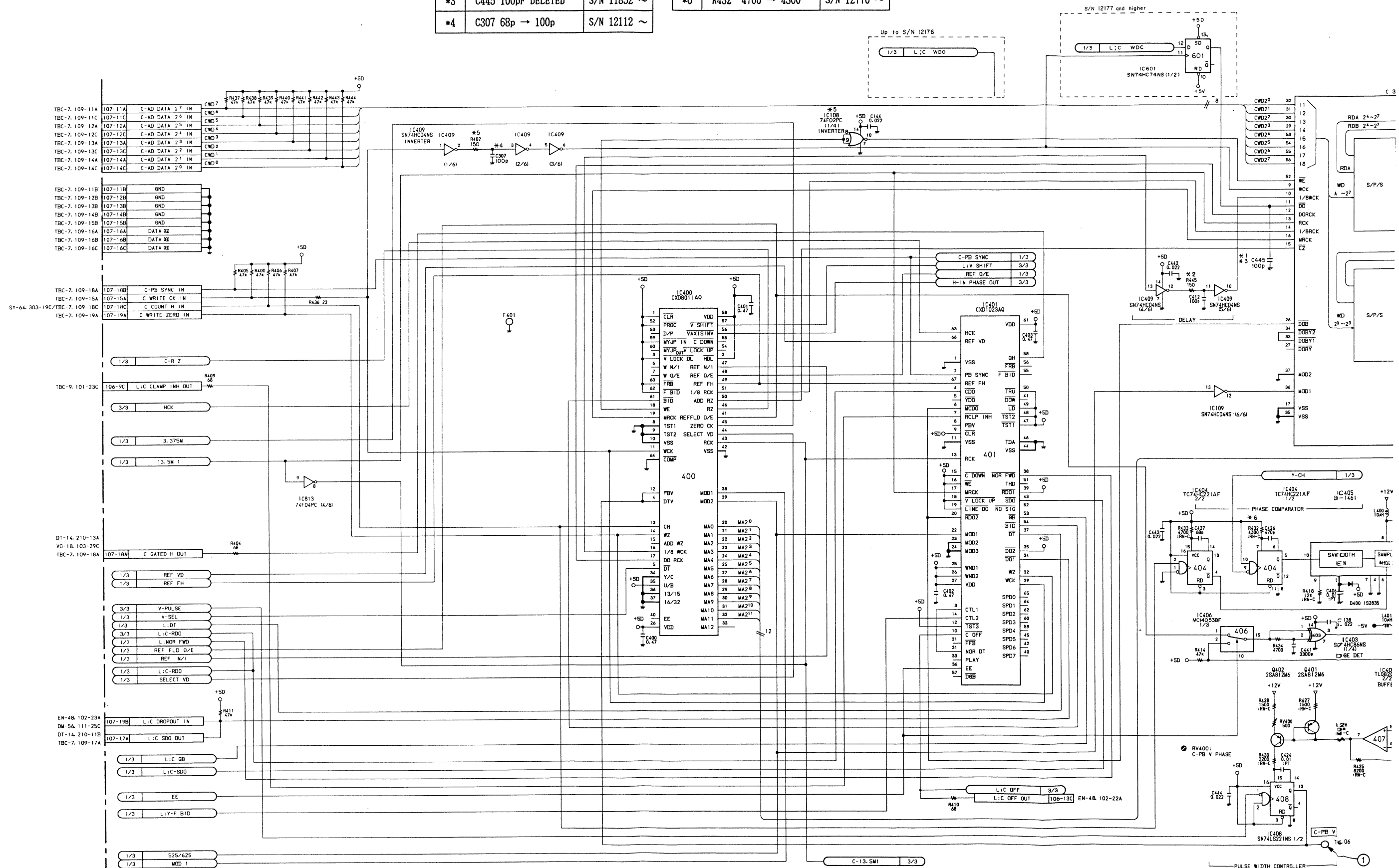
TBC-8P (2/3)  
1-622-549-15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P



## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C445 100pF ADDED	S/N 11155 ~
*2	R445 68 → 150	S/N 11340 ~
*3	C445 100pF DELETED	S/N 11852 ~
*4	C307 68p → 100p	S/N 12112 ~

*5	IC108 74F04PC → 74F02PC IC402 SBX4001-01 → SBX1596-01 R402 68 → 150	S/N 12177 ~
*6	R432 4700 → 4300	S/N 12770 ~

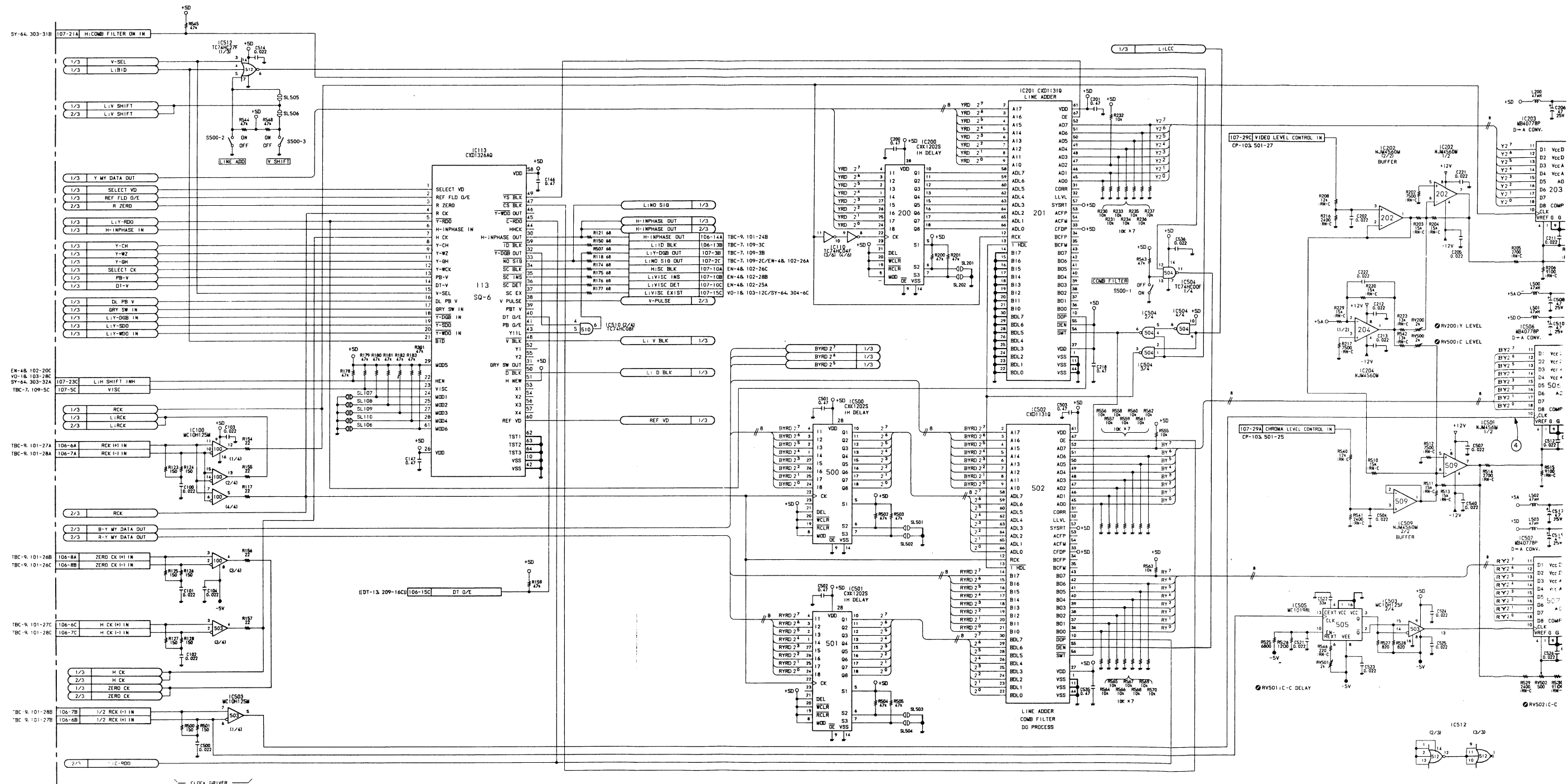


16-50(c)

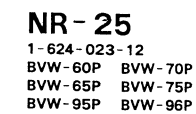
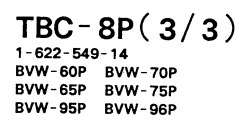
16-51(c)



S/N 10061 through 10416



16-58 (a)







(( )) ; DT PLAYER ONLY

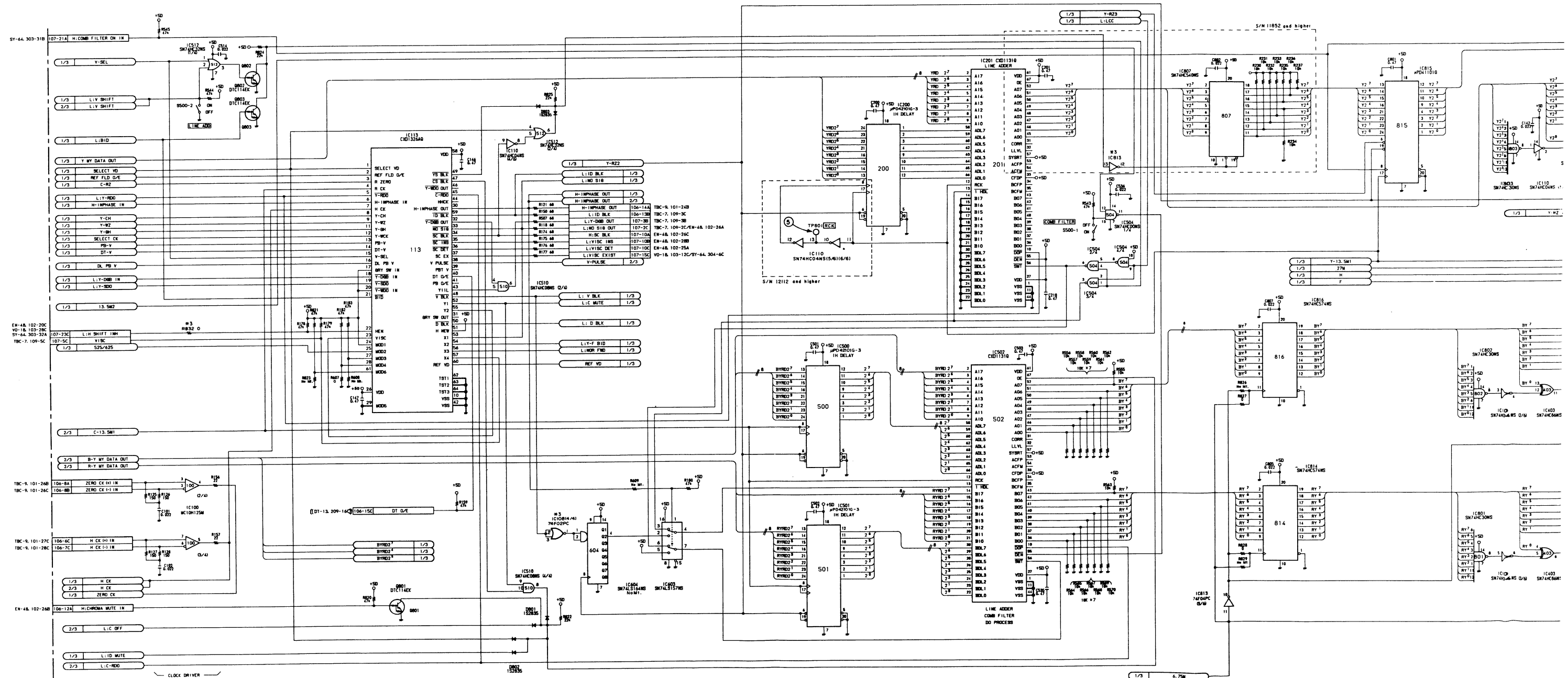
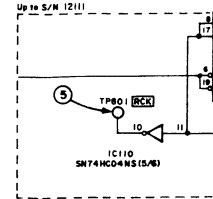


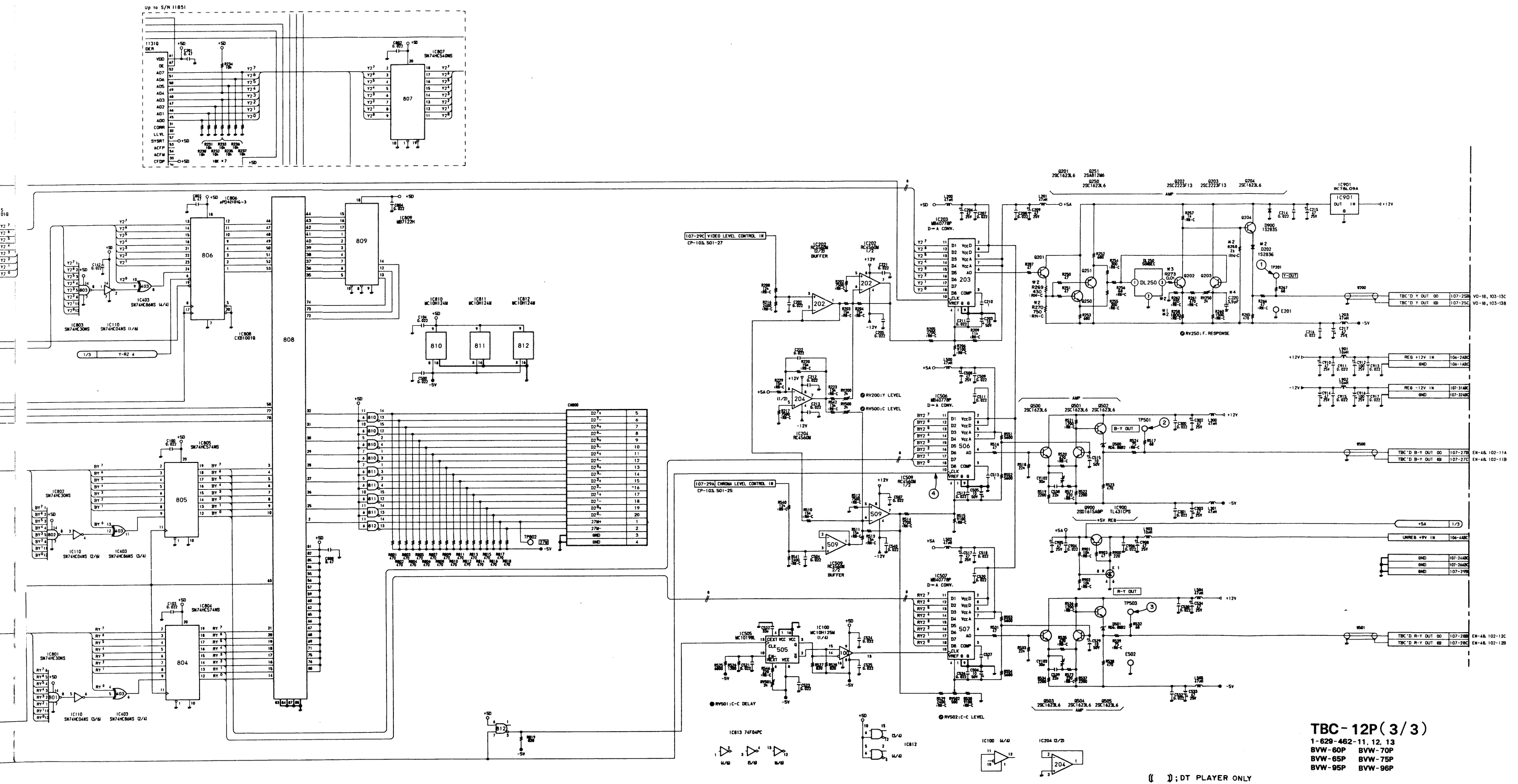
TBC-12P (3/3) ; D/A CONVERTER, DIGITAL VIDEO PALLALEL OUTPUT

S/N 10770 and higher

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R258 1500 → 1800	S/N 11260 ~
*2	D201 RD3.6MB2 → R269 430 D202 RD3.6MB2 → 1S2836 Q205 2SK94-X3 → R270 750 R258 1800 → 1600 R262 620 → 220 R268 2k ADDED	S/N 11340 ~
*3	ADDED R273, R832 CHANGED IC108 74F04PC → 74F02PC IC108-5, 6pin → IC813-13, 12pin	S/N 12177 ~
*4	C220 ADDED	S/N 12302 ~



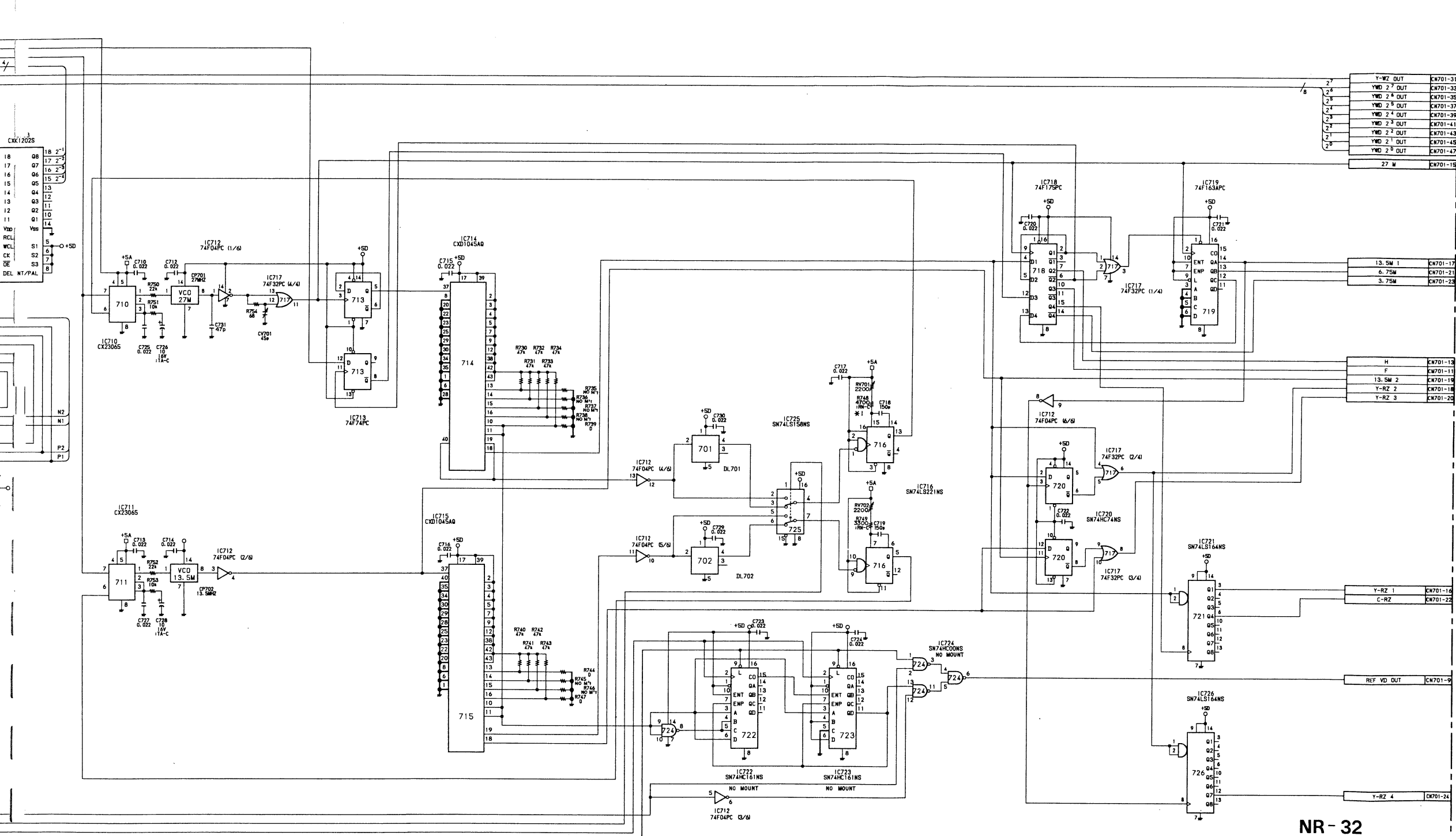






SERIAL NO.

S/N 11155 ~



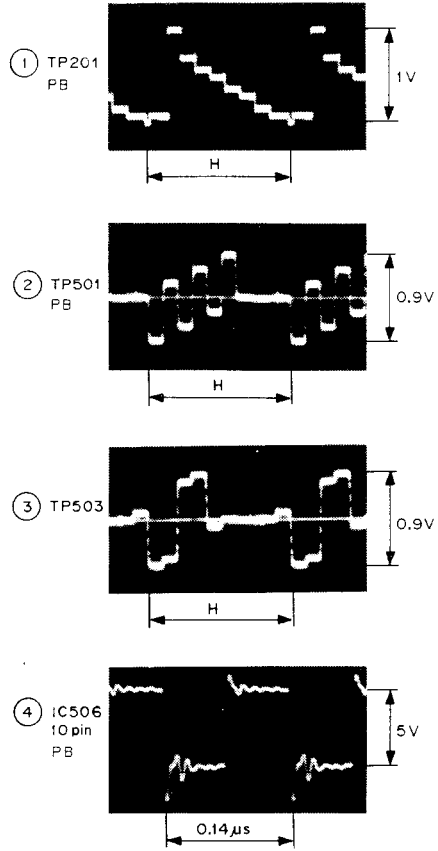
NR-32

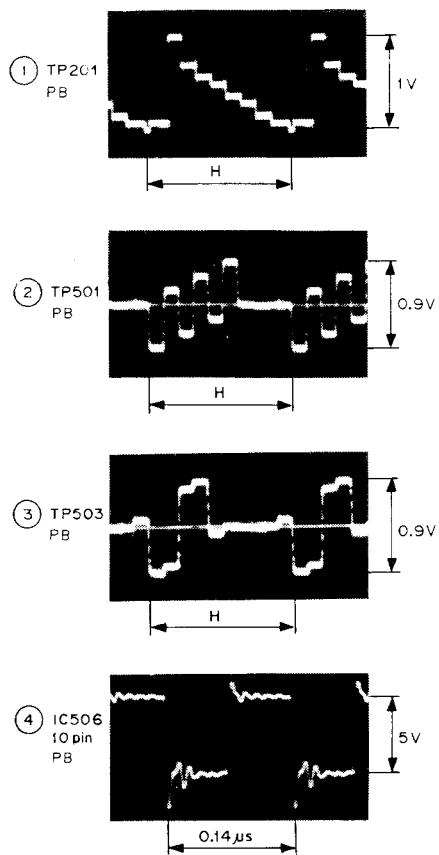
1-629-463-11

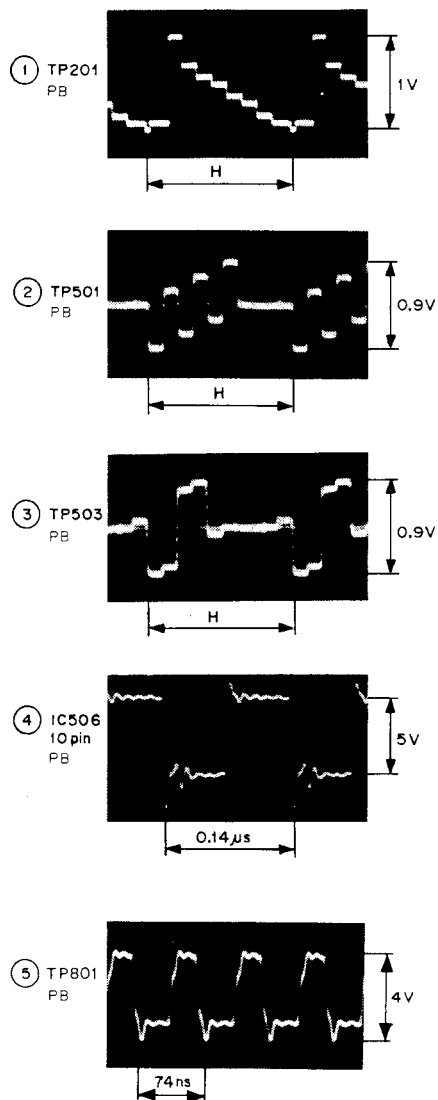
BVW-60P BVW-70P

BVW-65P BVW-75P

BVW-95P BVW-96P





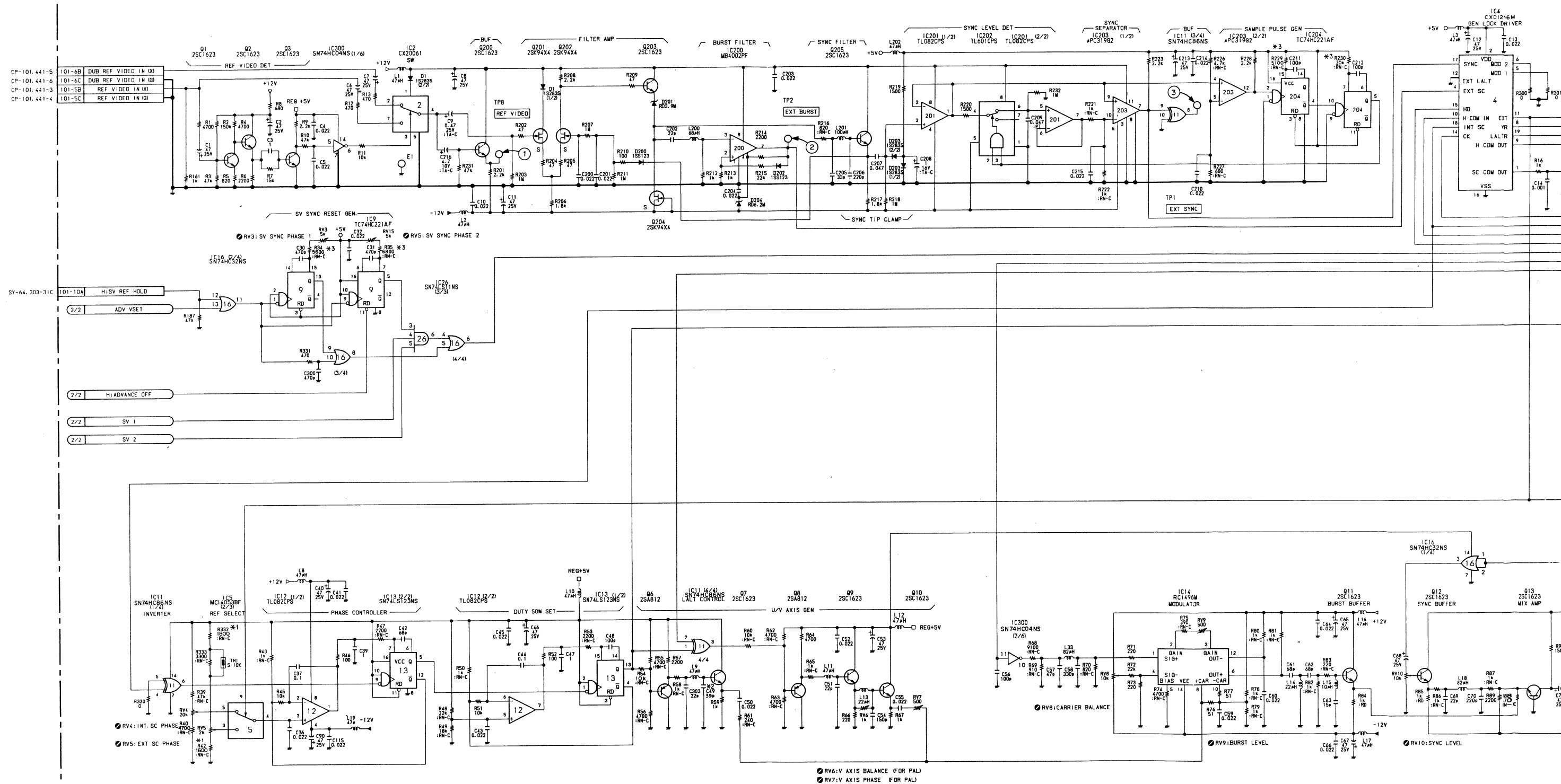


# TBC-9P (1/2) ; REFERENCE SIGNAL GENERATOR

TBC-9P (1/2) TBC-9P (1/2)

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R42 1200 → 1600 R332 2200 → 1800	S/N 10770 ~
*2	C49 47pF → 39pF	S/N 11425 ~
*3	R28 8200 → 7500 R29 10k → 11k R34 6800 → 5600 R35 8200 → 6800 R229 5600 → 5100 R230 22k → 20k	S/N 12770 ~



16-65

16-66

A

B

C

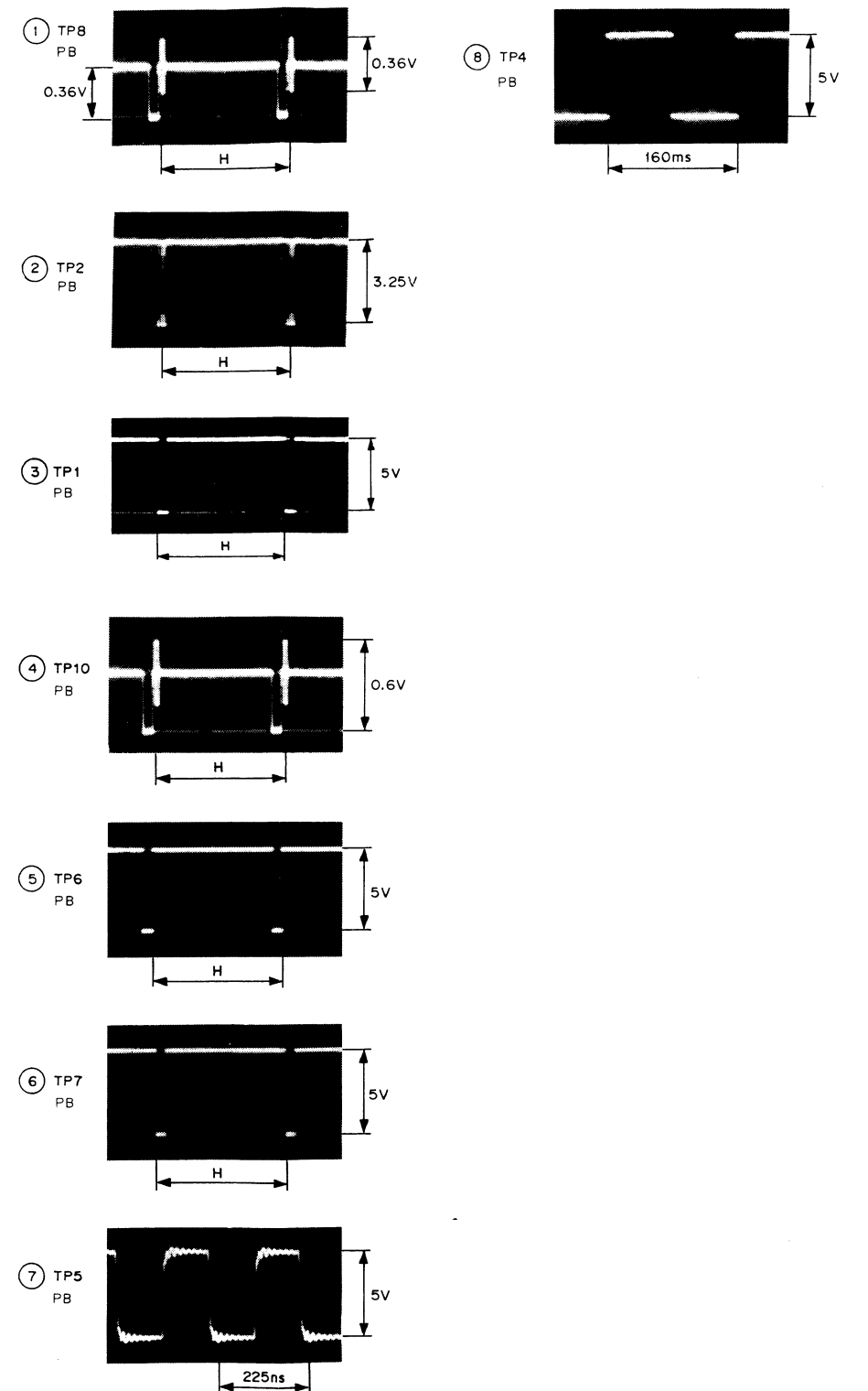
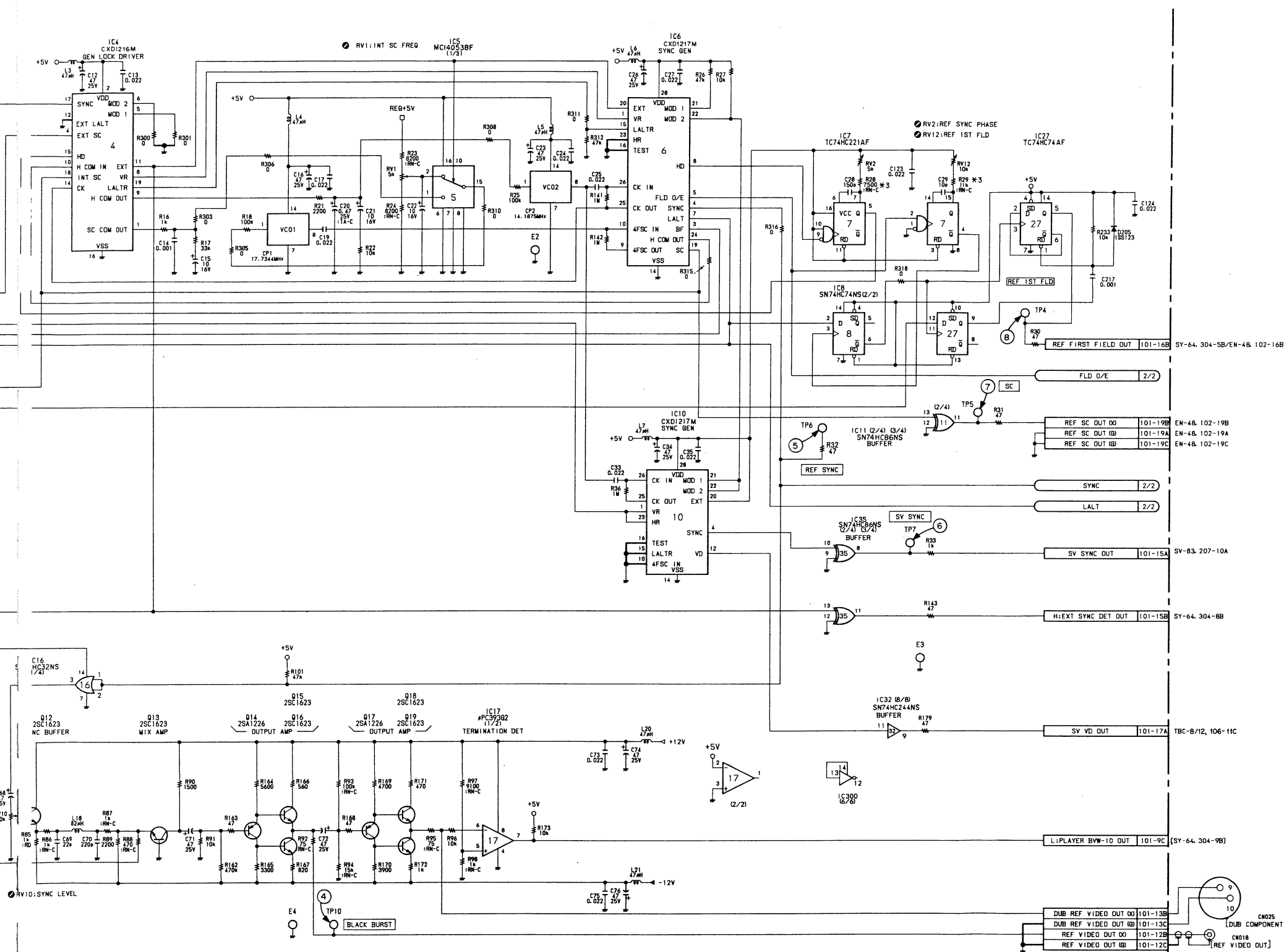
D

E

F

G

H



TBC-9P (1/2)

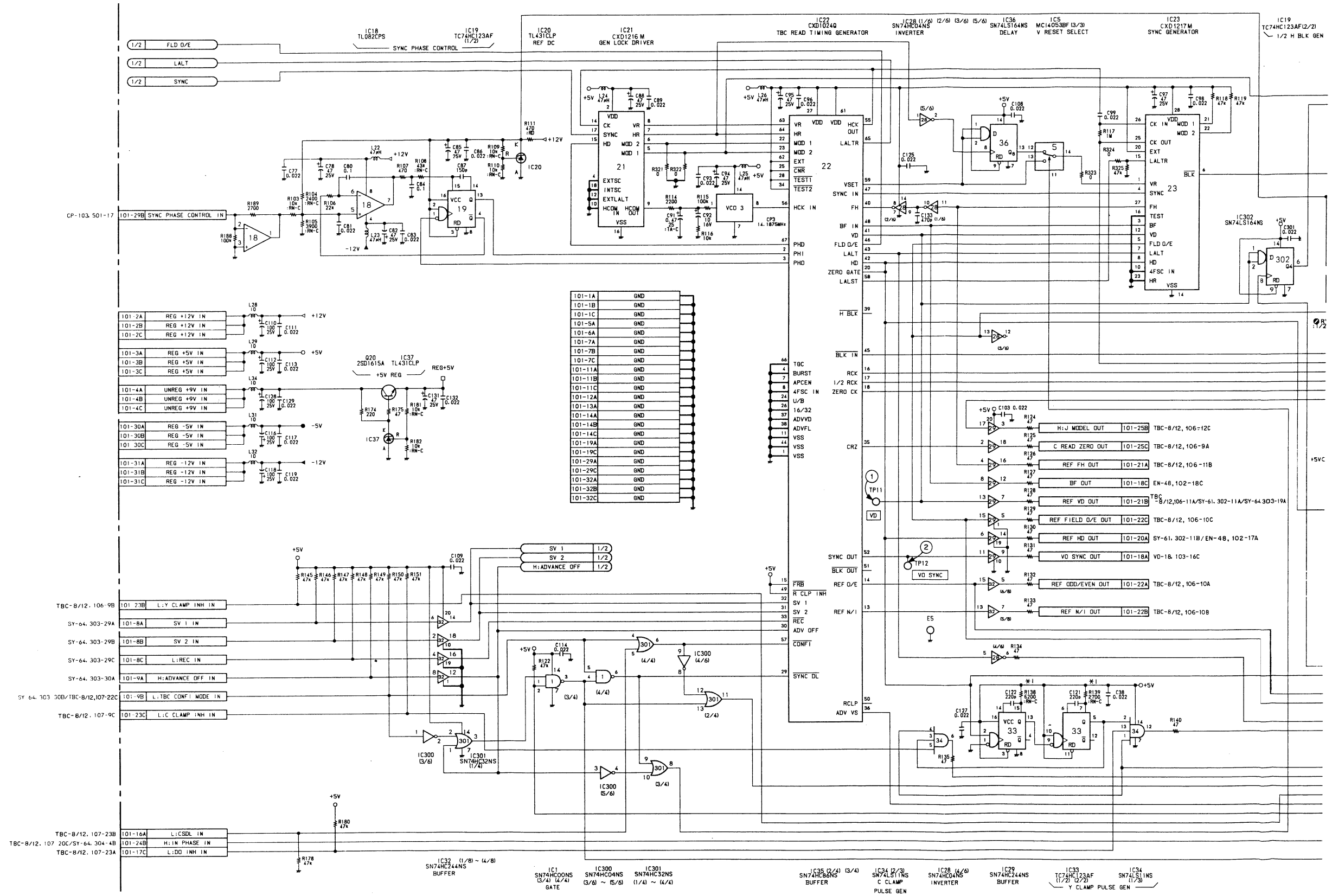
1-622-550-13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

[ ]; RECORDER ONLY

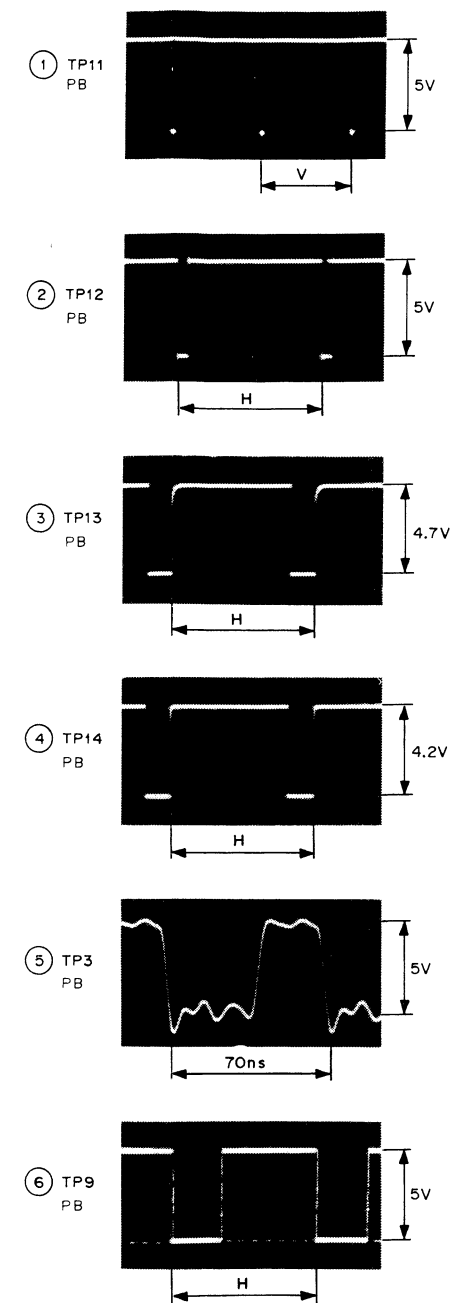
## TBC-9P (2/2); TBC READ TIMING GENERATOR

## NOTE

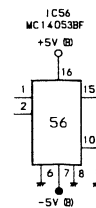
MARK	CHANGE INFORMATION	SERIAL NO.
*1	R120 13k → 5600 R138 8200 → 6200 R139 3900 → 2700	S/N 12770 ~

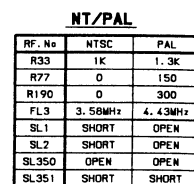




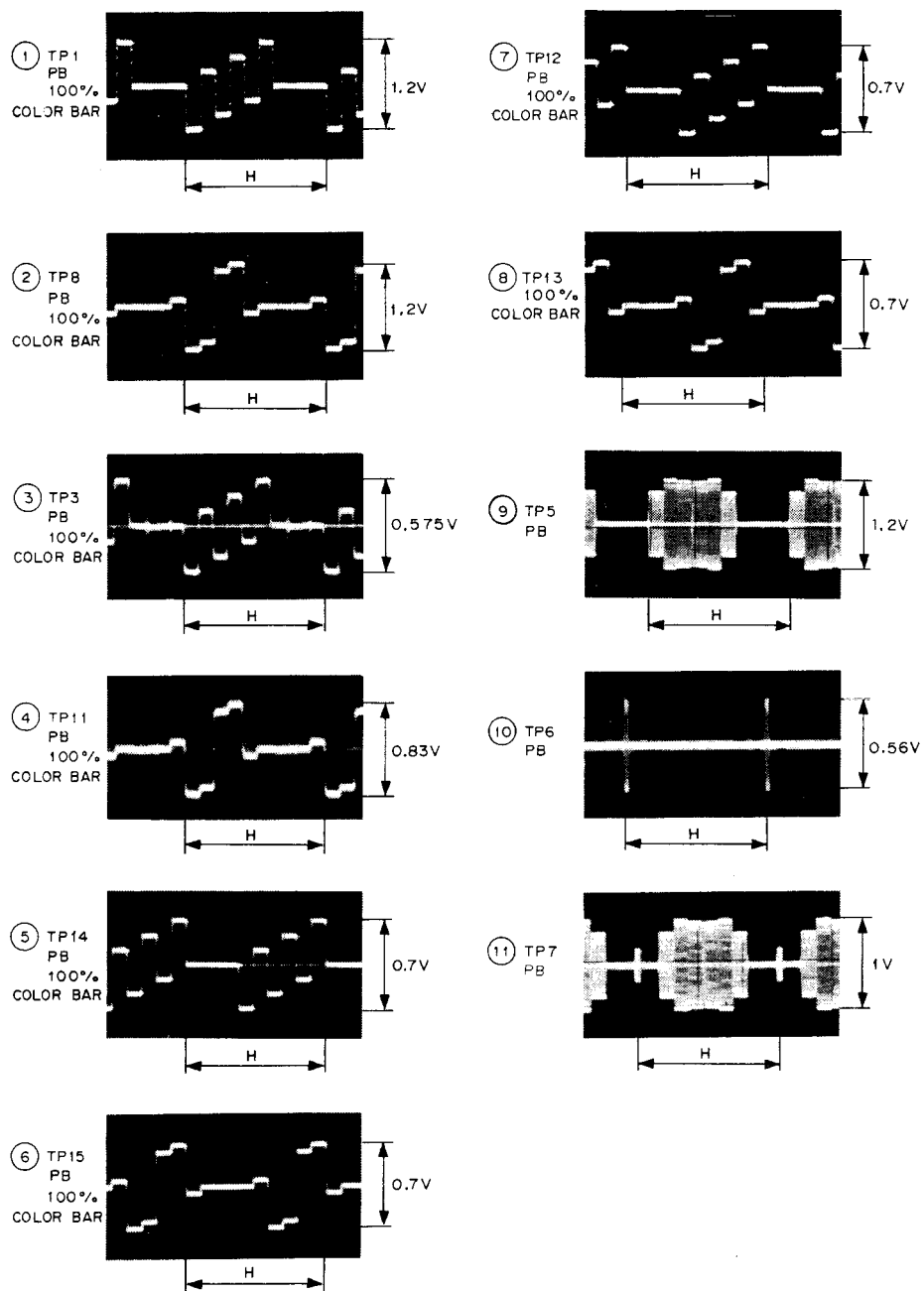


1-622-550-13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

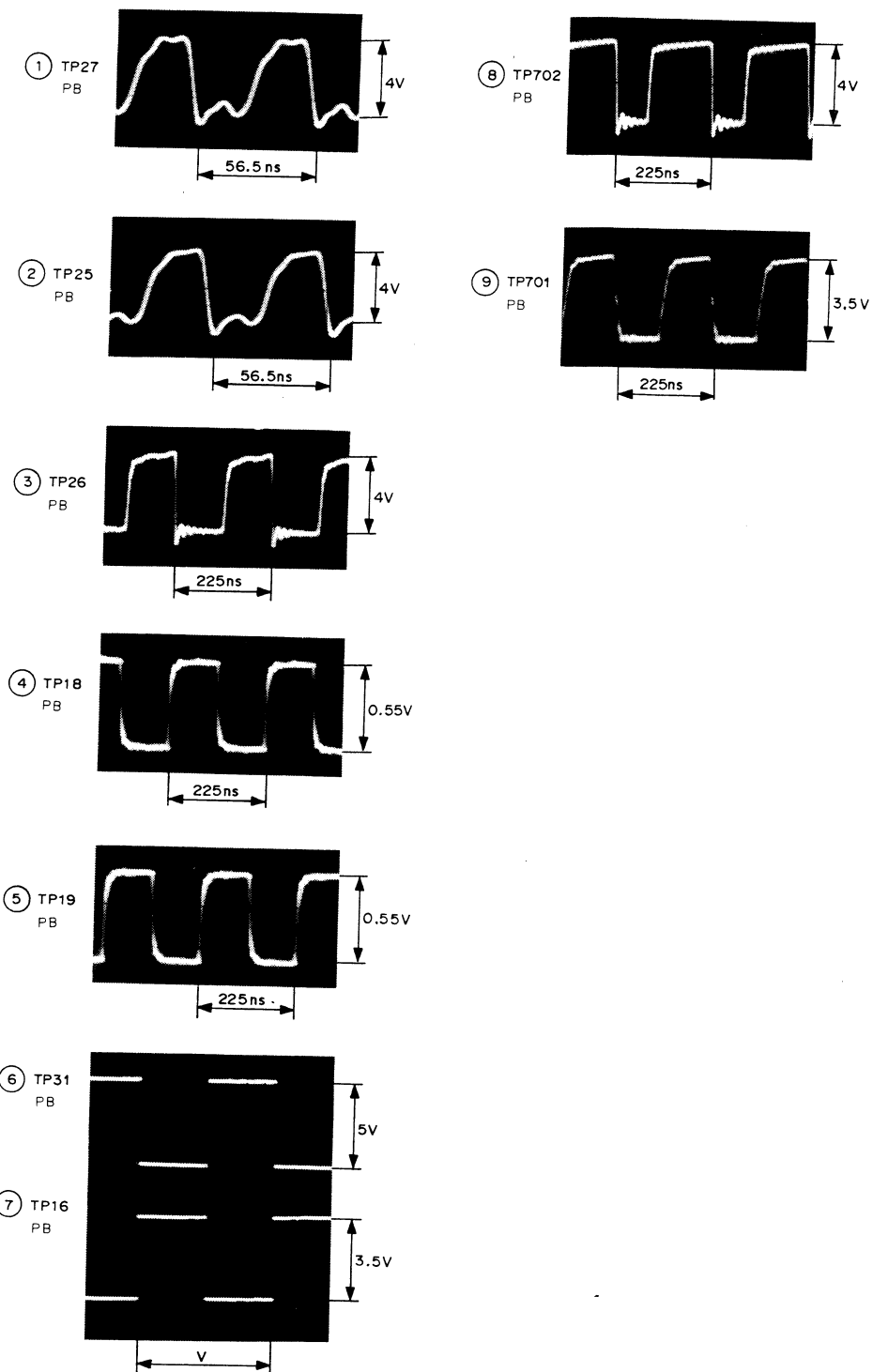




1-622-546-14, 15  
 BVW-60P      BVW-70P  
 BVW-65P      BVW-75P  
 BVW-95P      BVW-96P





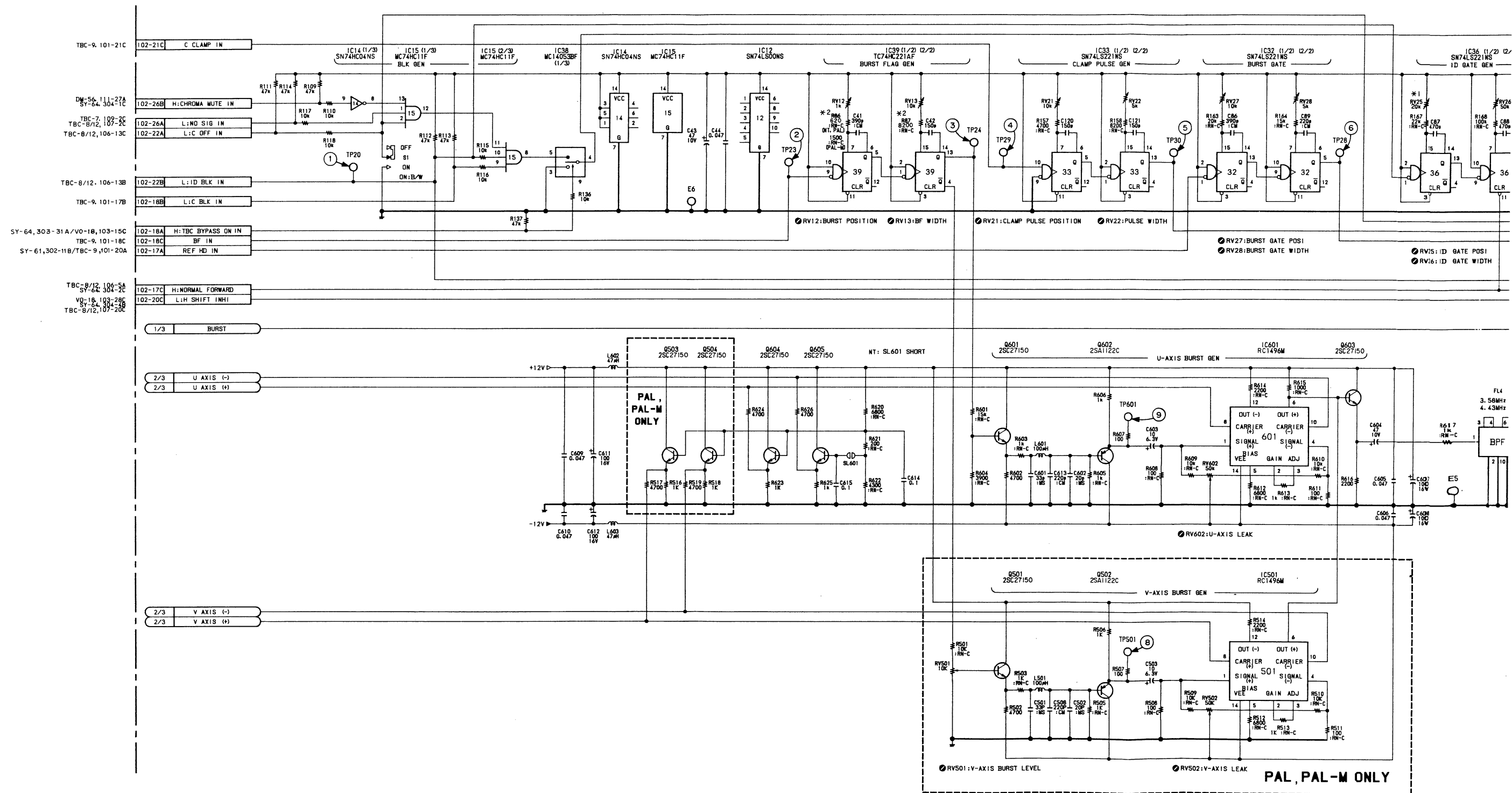
[illegible]

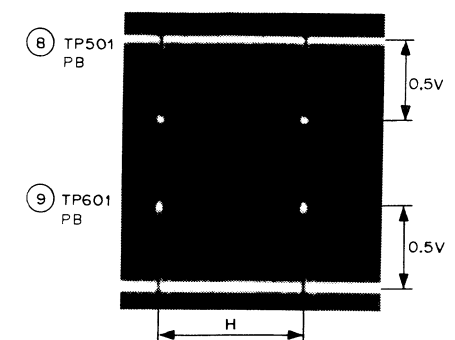
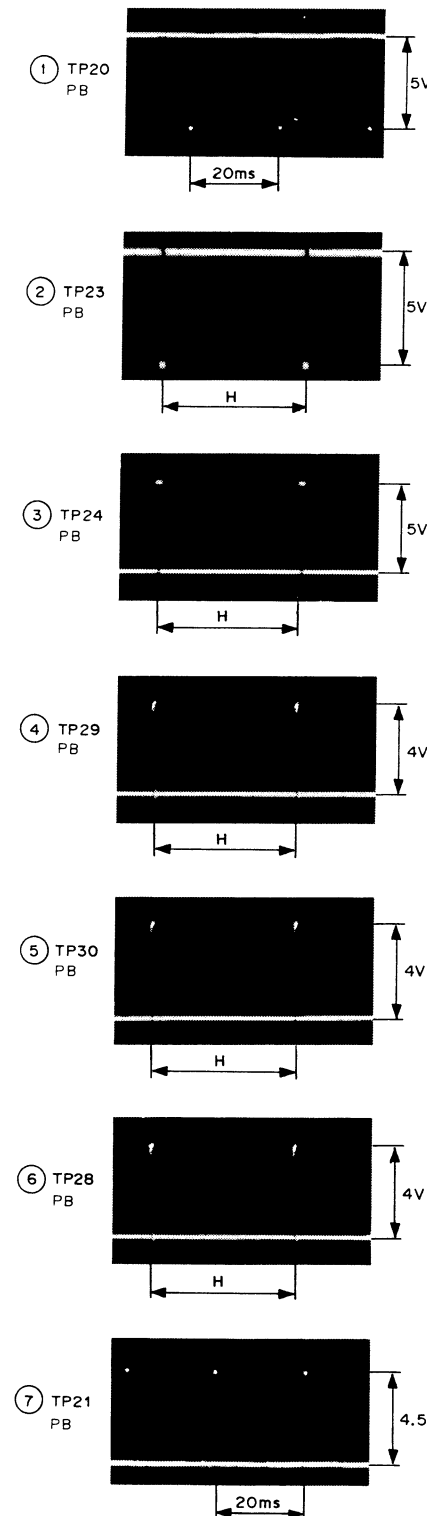
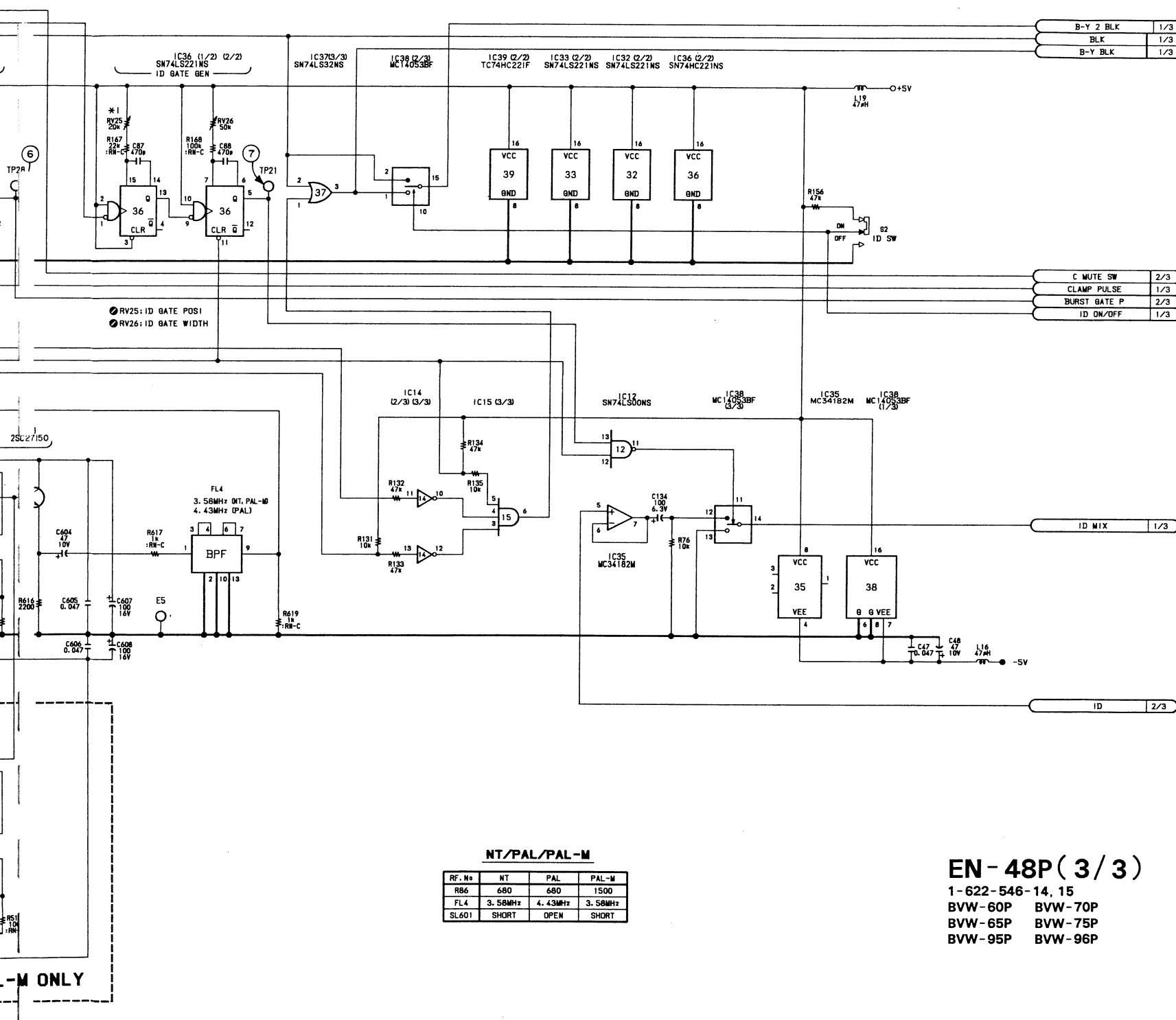
1-622-546-14, 15  
 BVW-60P      BVW-70P  
 BVW-65P      BVW-75P  
 BVW-95P      BVW-96P

EN-48P (3/3) ; C BLK/BURST GENERATOR

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	RV25 10k → 20k	S/N 11340 ~
*2	R86 680 → 620 R87 10k → 8200	S/N 12770 ~



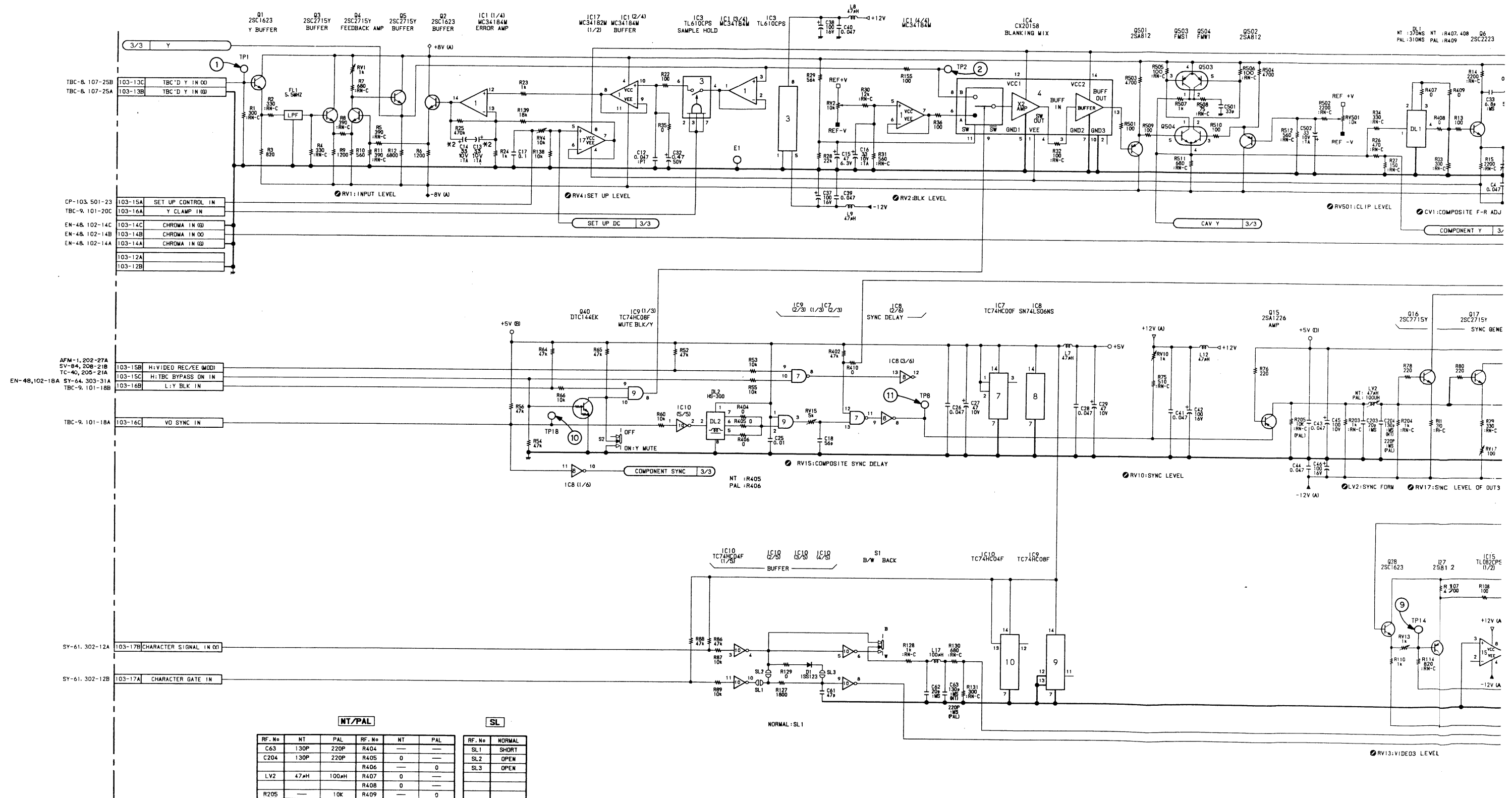


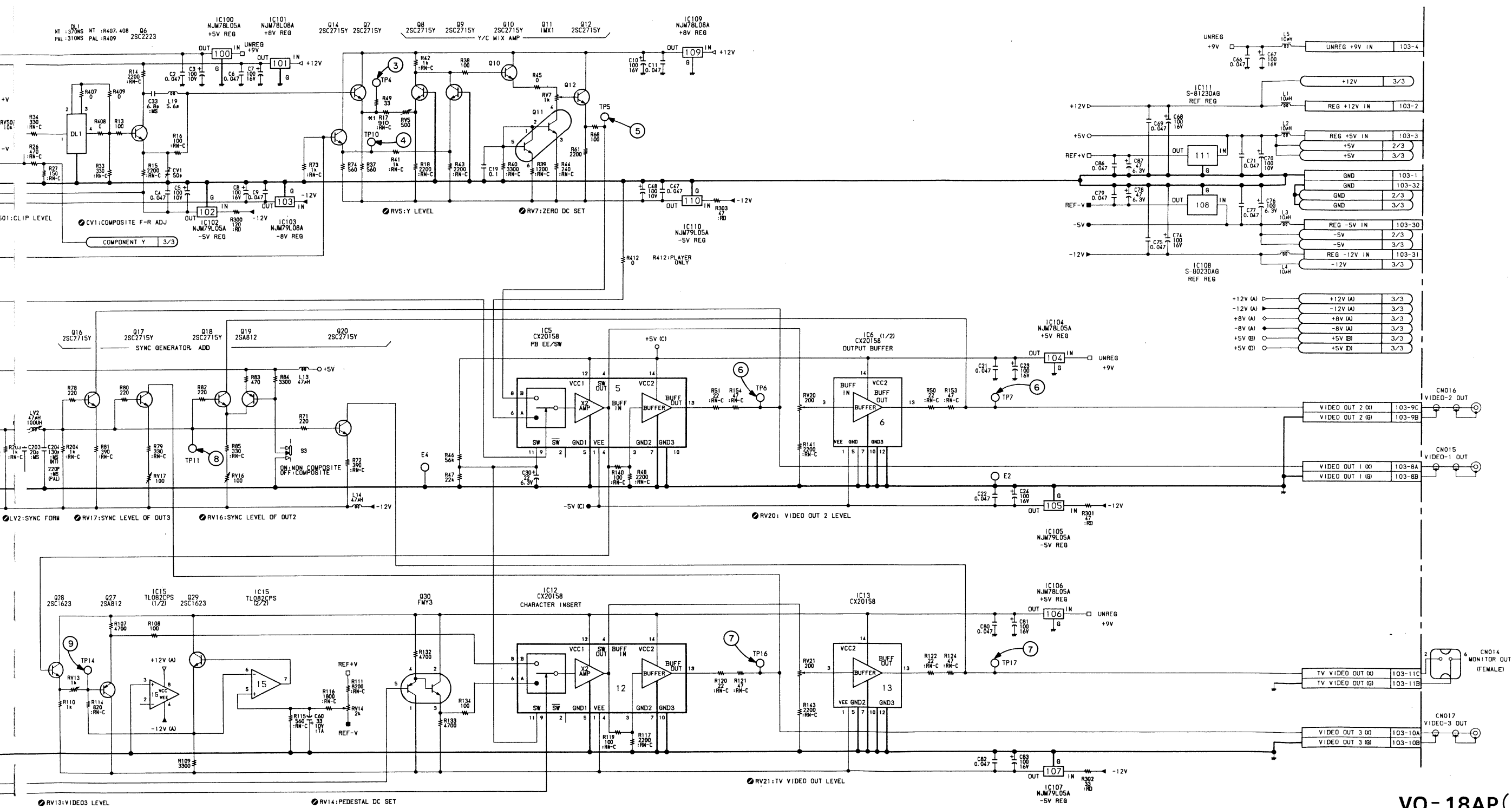


VO-18AP (1/3) ; VIDEO OUTPUT

**NOTE**

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R17 820 → 910	S/N 10326 ~
*2	C13 1.5/25V → 33/10V C14 1.5/25V → 33/10V	S/N 11852 ~





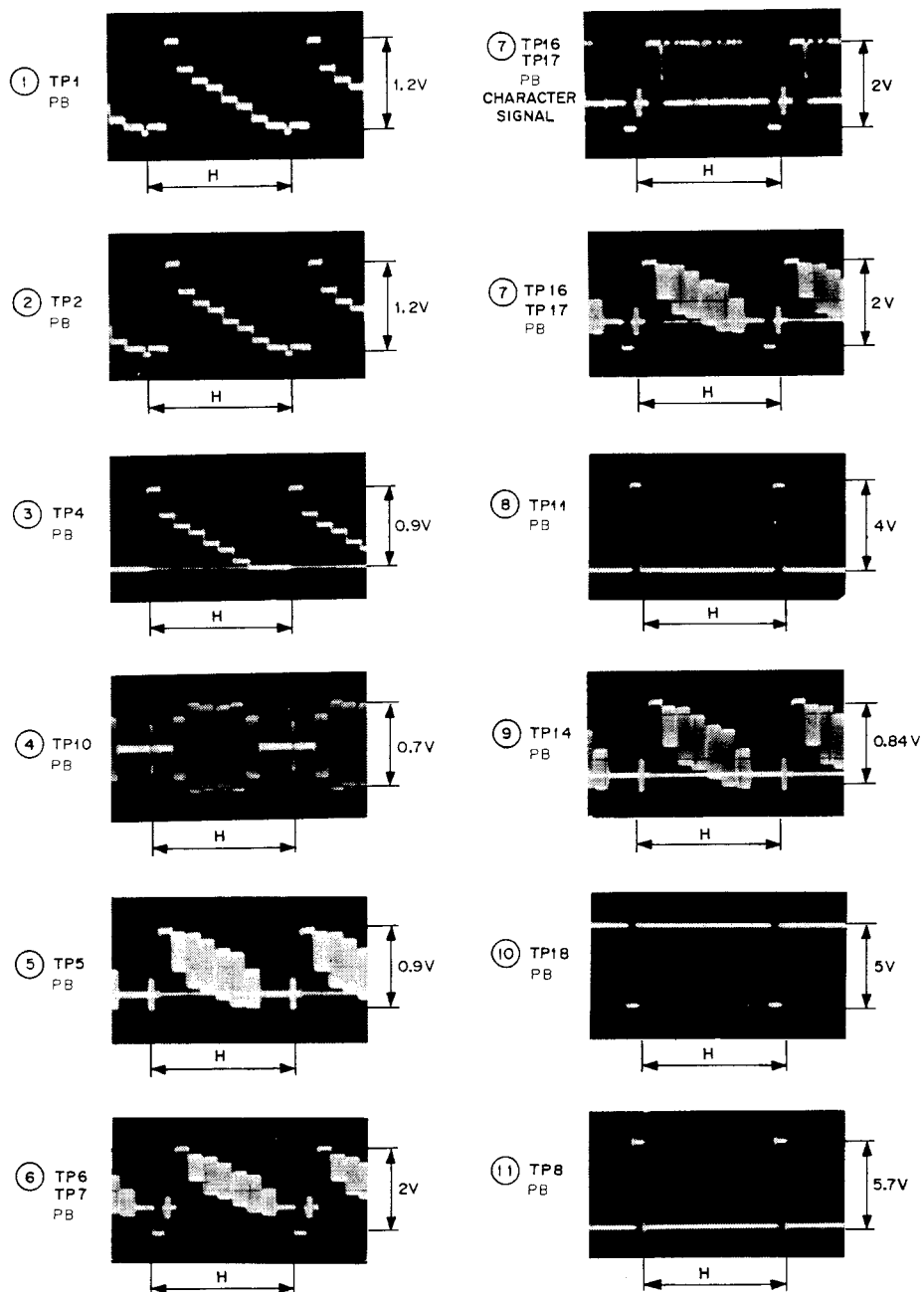
VO-18AP(1/3)

1-622-547-21, 22, 23

BVW-60P

BVW-65P

BVW-95P



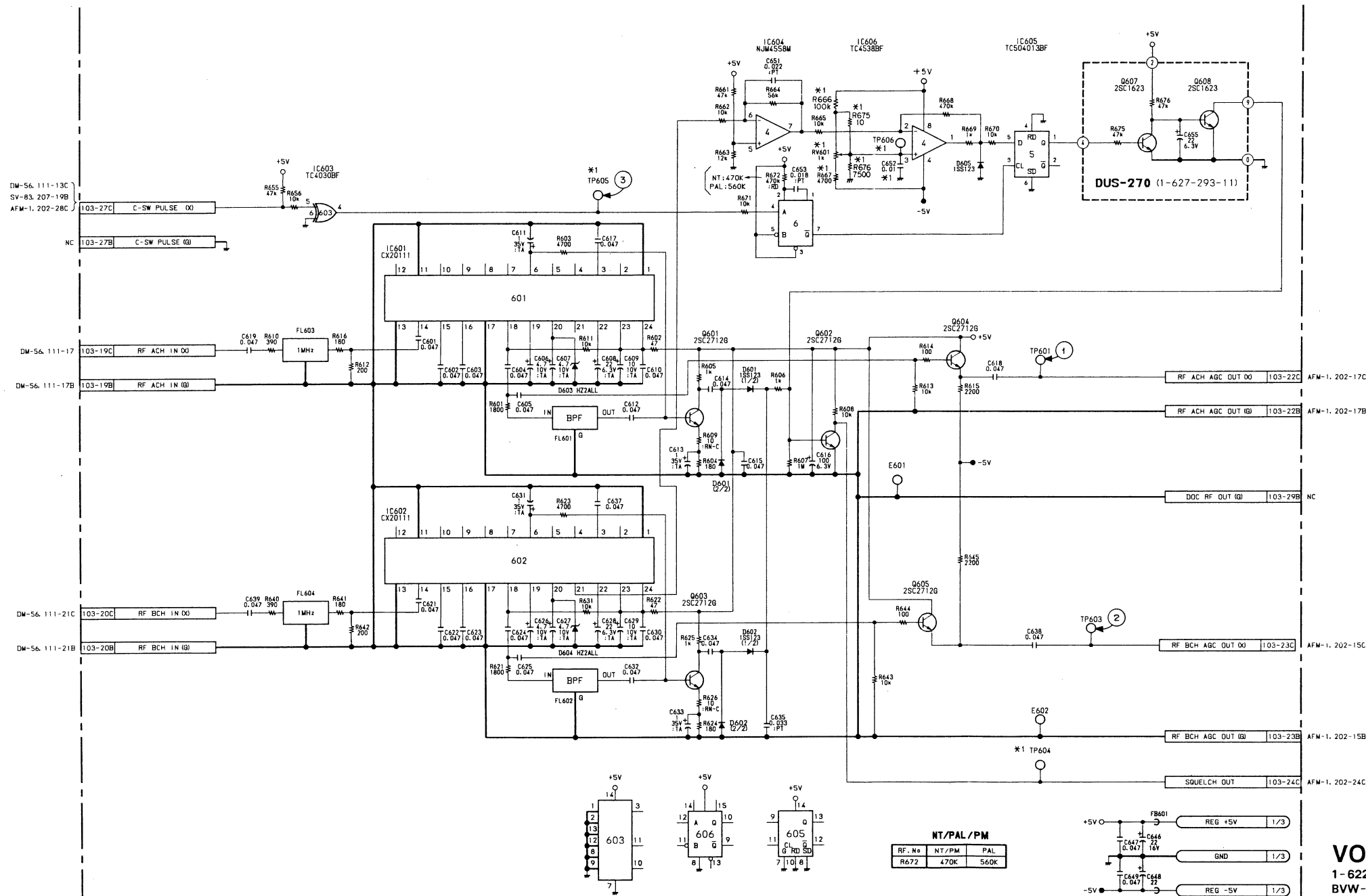
VO-18AP (2/3); AGC FOR AFM  
VO-18AP (3/3); SCH DETECTOR  
DUS-270; SQUELCH BUFFER

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	DELETED C652, R667, RV601, TP604, TP605, TP606 ADDED R675, R676 CHANGE R666 3900 → 100k	S/N 11677 ~

NOTE

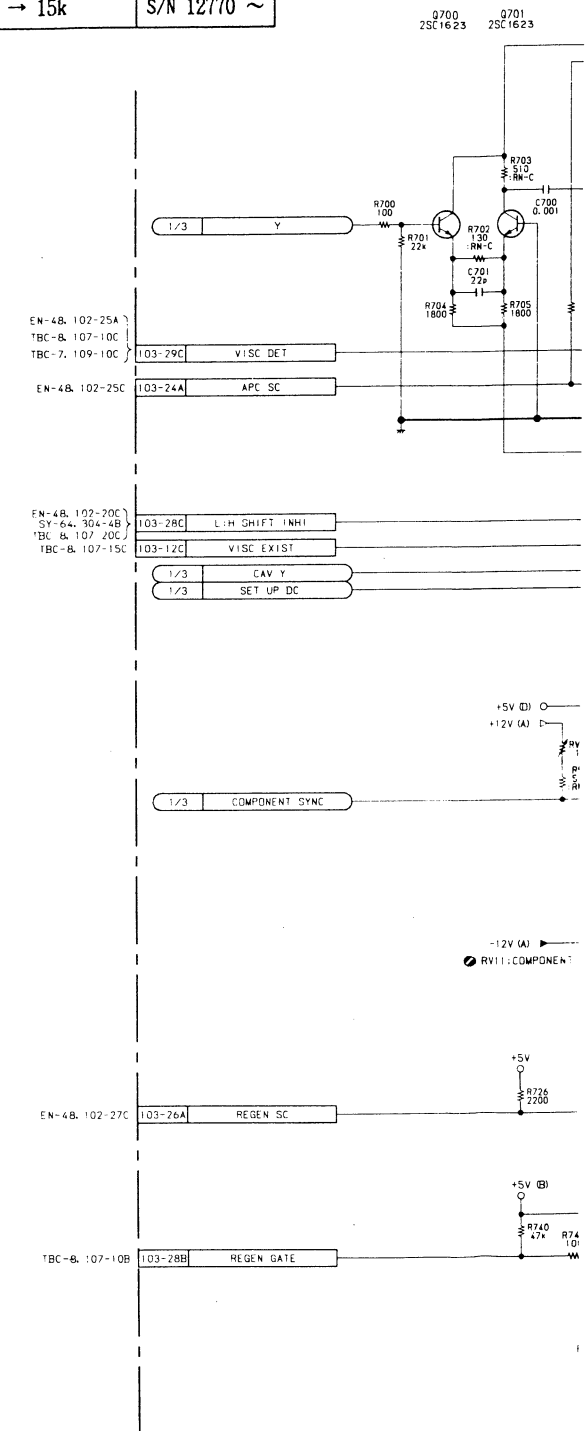
MARK	CHANGE INFORMATION	SERIAL NO.
*1	R724 33k → 15k	S/N 12770 ~

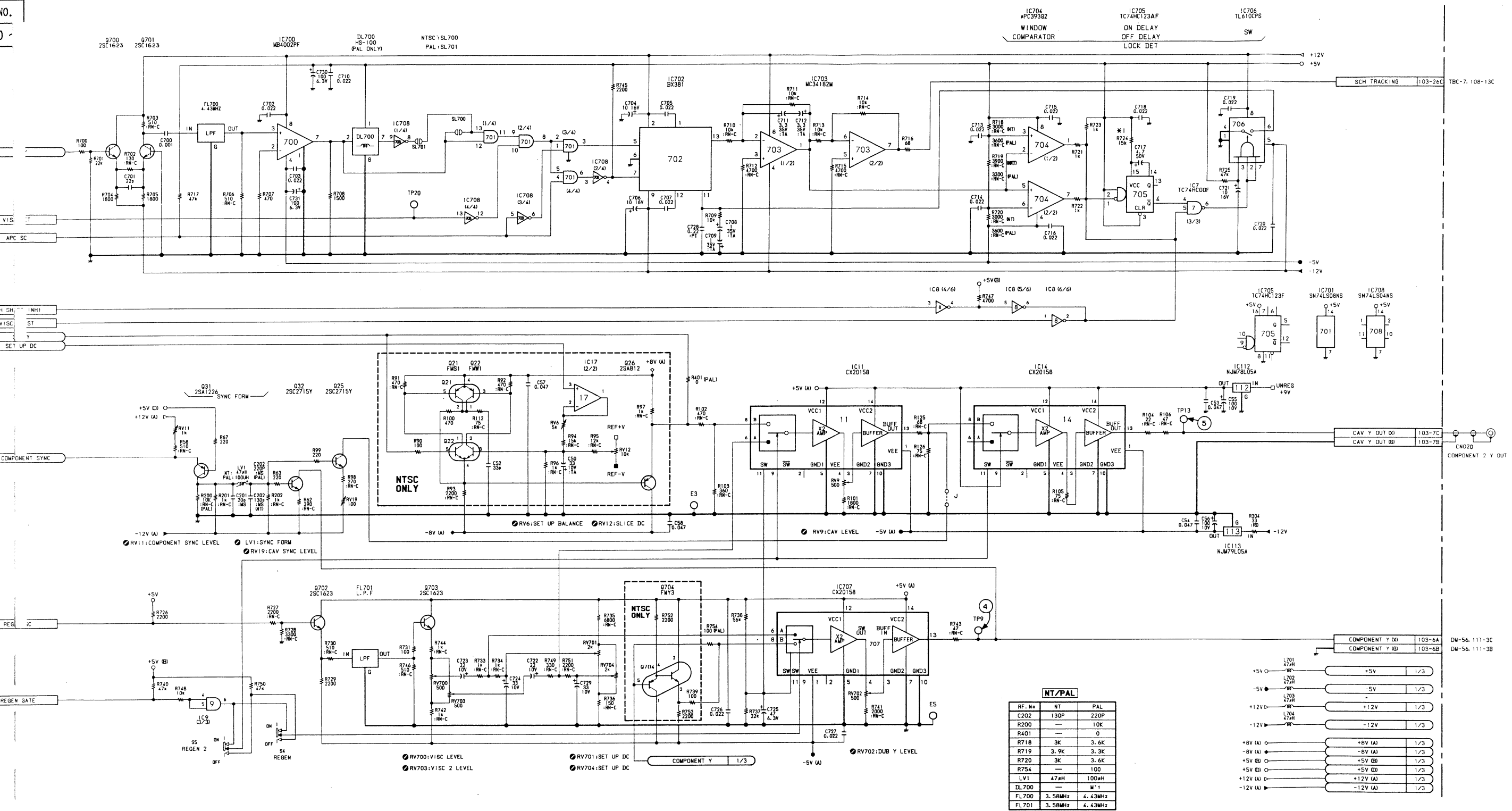


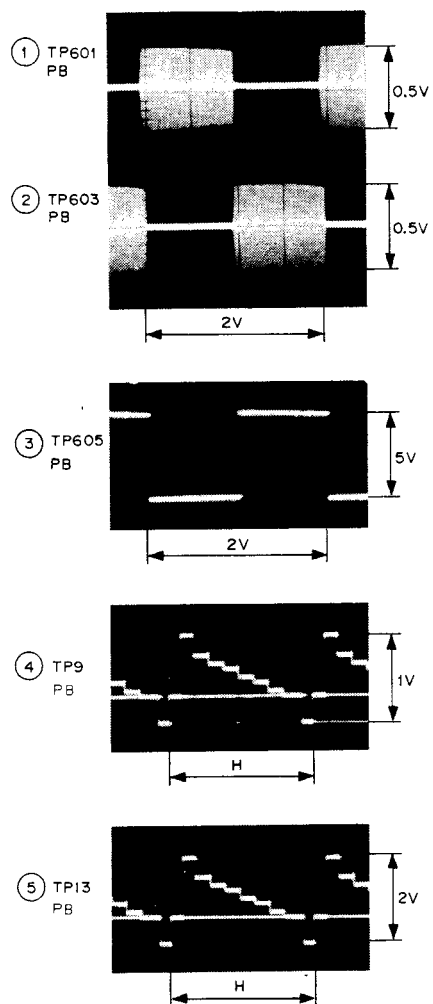
RF. No	NT/PM	PAL
R672	470K	560K

VO-18AP(2/3)

1-622-547-21, 22, 23  
BVW-60P  
BVW-65P  
BVW-95P

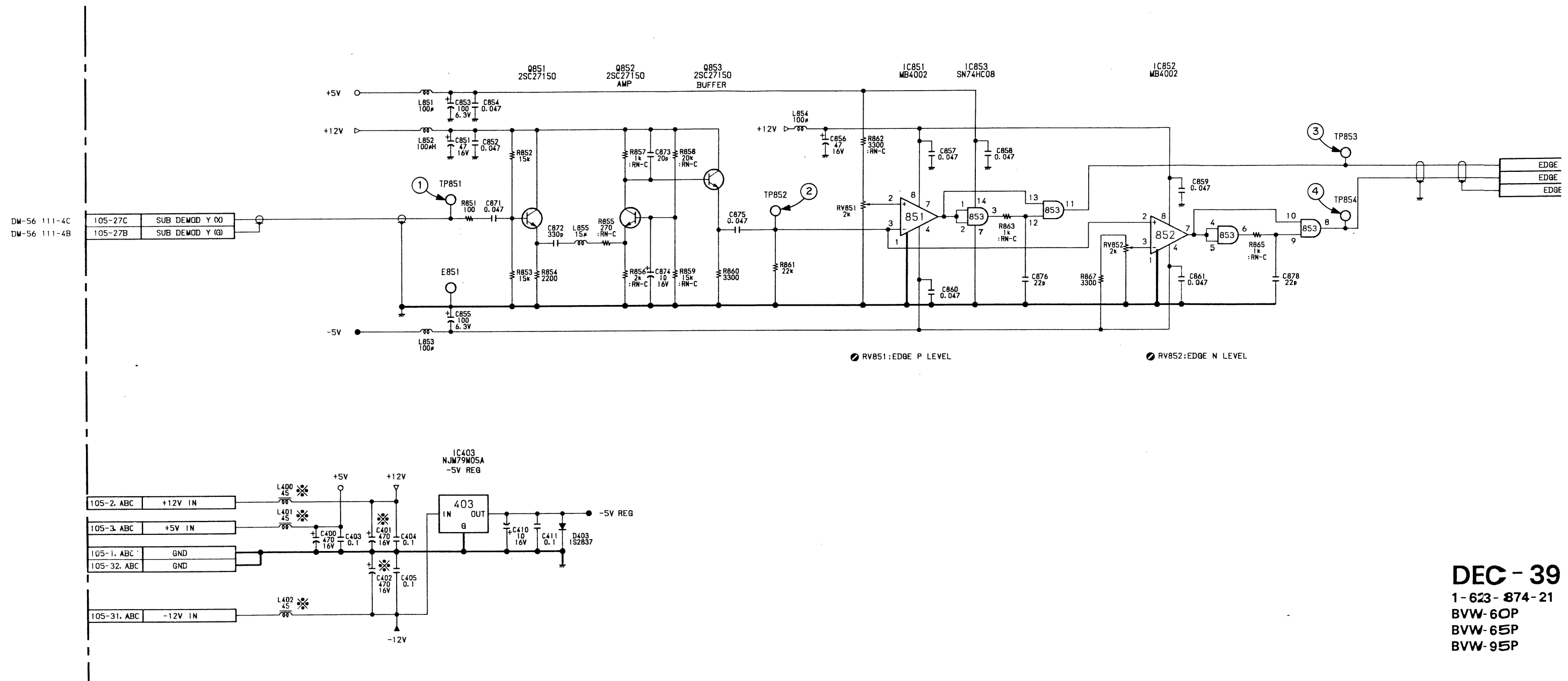






DEC-39A; EDGE DETECTOR

S/N 10061 through 10669



DEC-39

1-623-874-21

BVW-60P

BVW-65P

BVW-95P

16-120 (a)

16-121 (a)

A

B

C

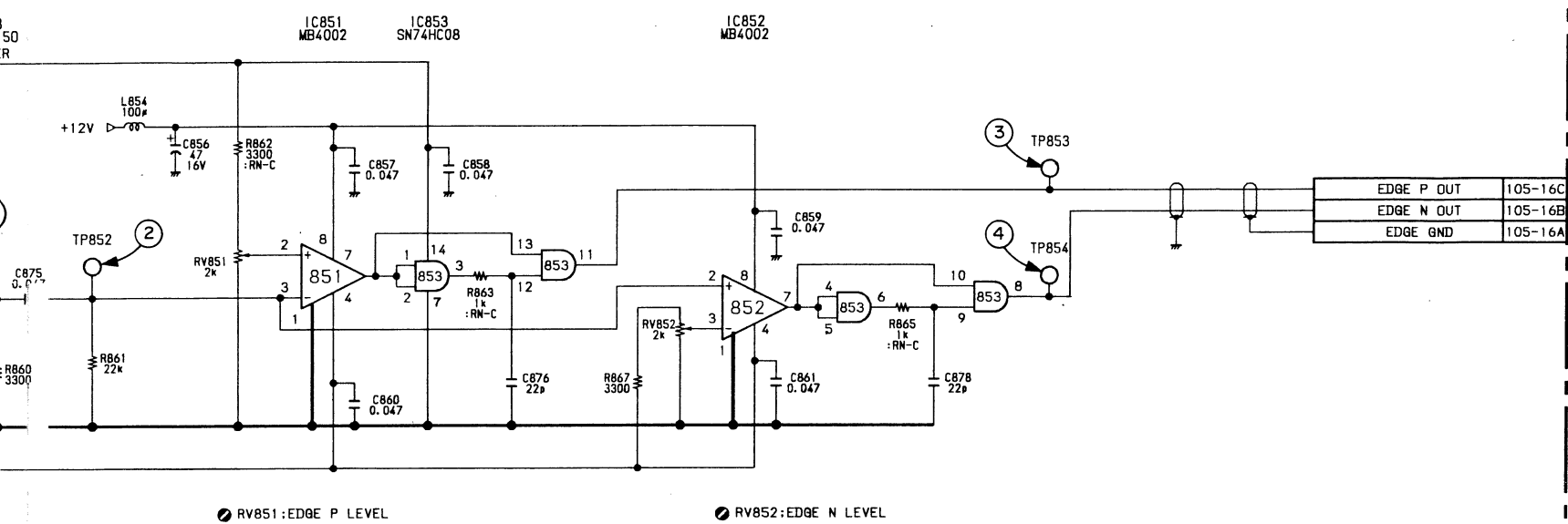
D

E

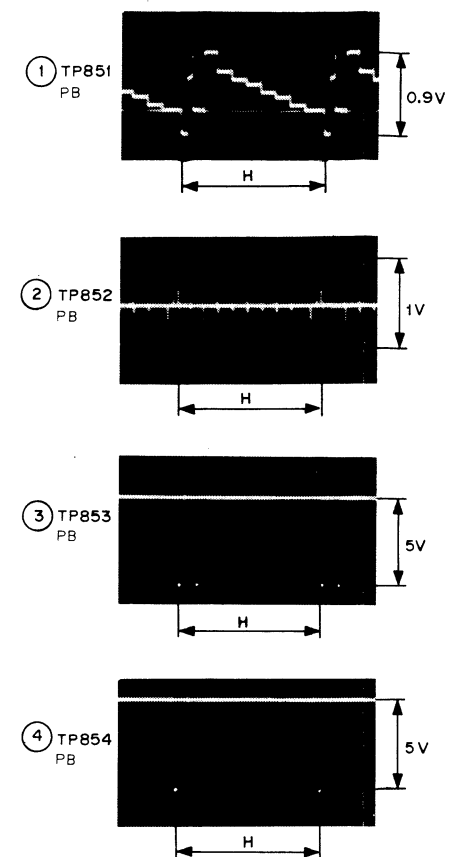
F

G

H



DM-56 111-22A  
TBC-8/12 107-22A  
DM-56 111-22B  
TBC-8/12 107-22B  
DM-56 111-22C  
TBC-8/12 107-24A



DEC-39A

1-623-874-21

BVW-60P

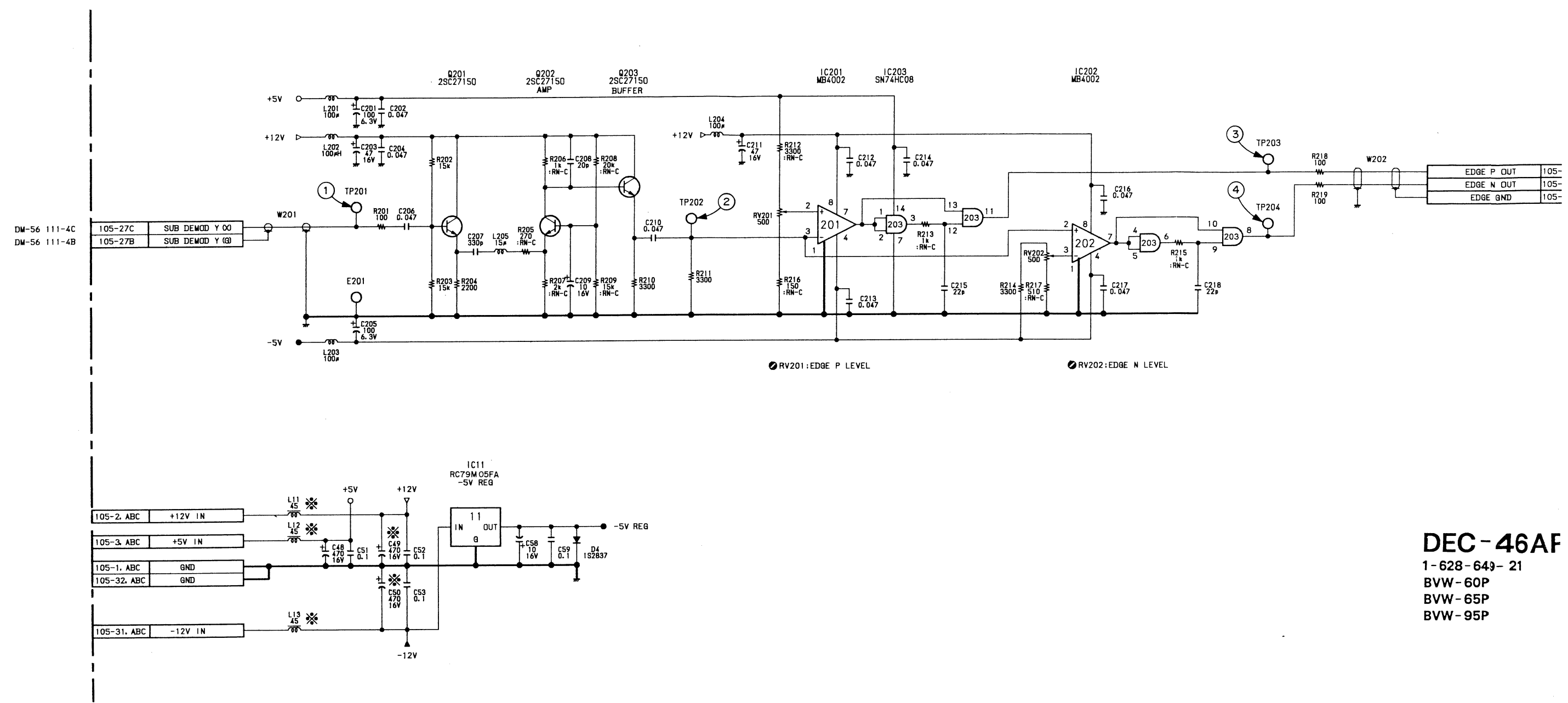
BVW-65P

BVW-95P



DEC-46AP; EDGE DETECTOR

S/N 10670 and higher

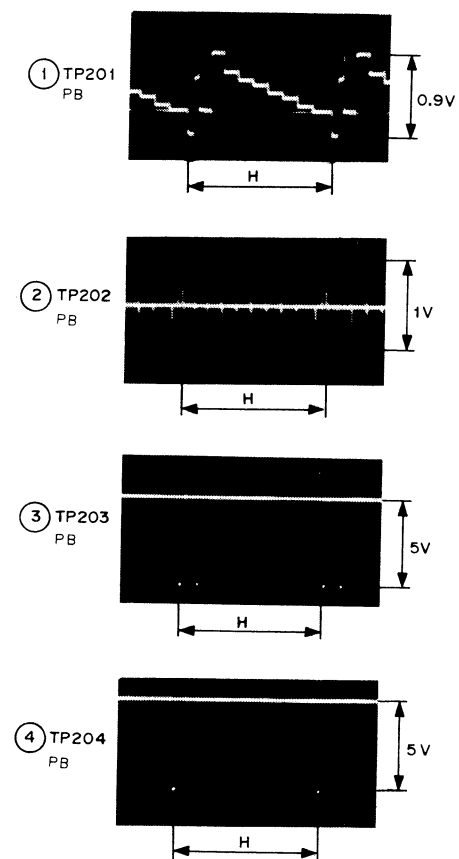
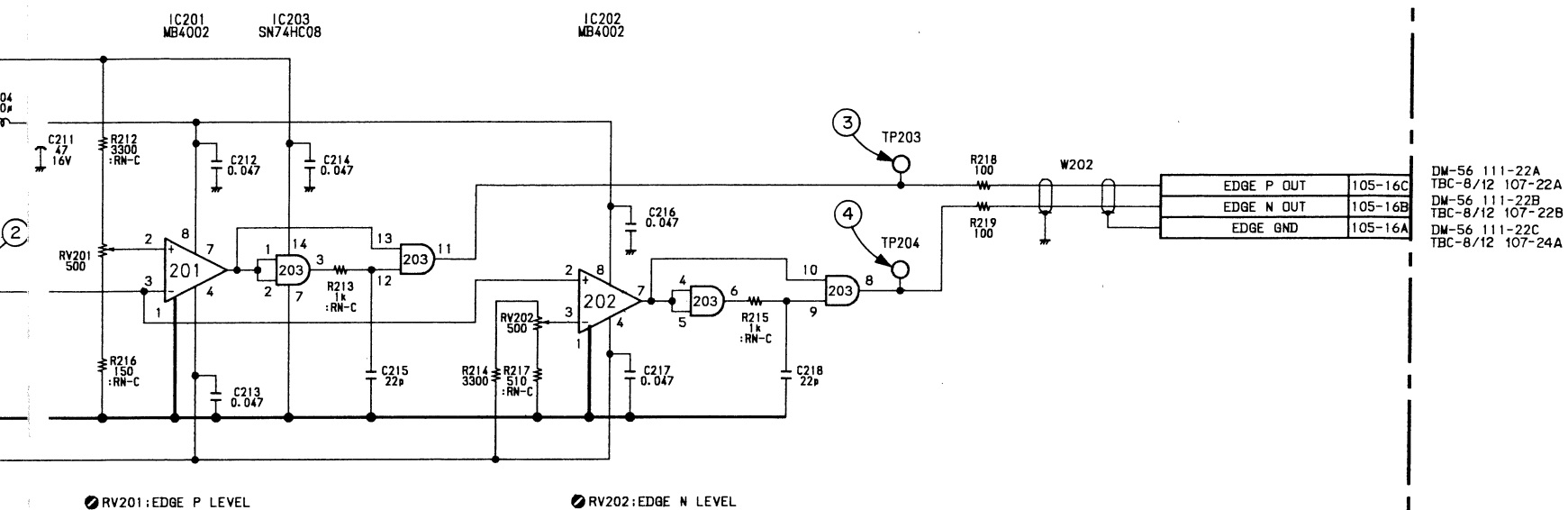


**DEC-46AF**  
1-628-649-21  
BVW-60P  
BVW-65P  
BVW-95P

16-120 (b)

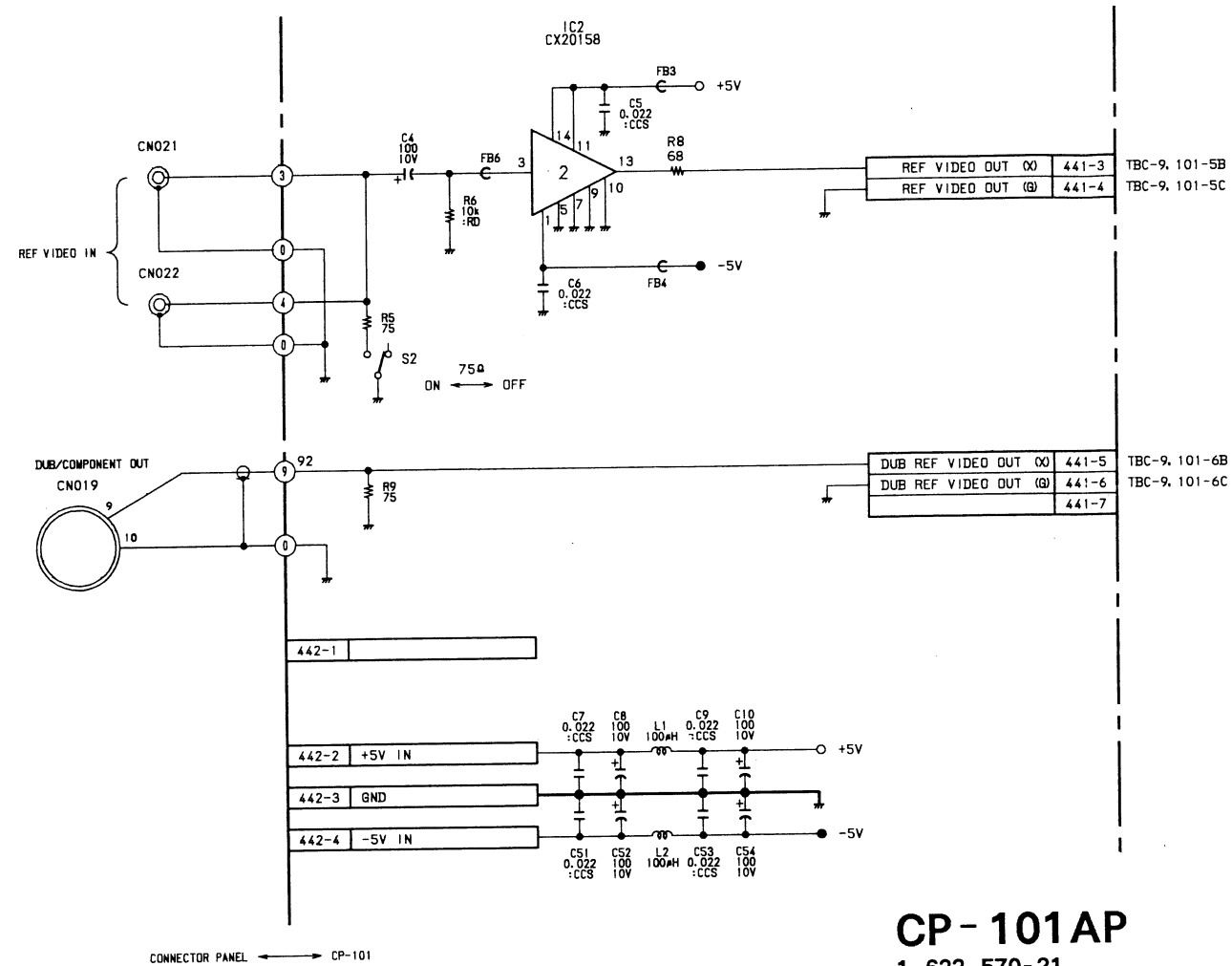
16-121 (b)

A | B | C | D | E | F | G | H



DEC-46AP  
1-628-649-21  
BVW-60P  
BVW-65P  
BVW-95P

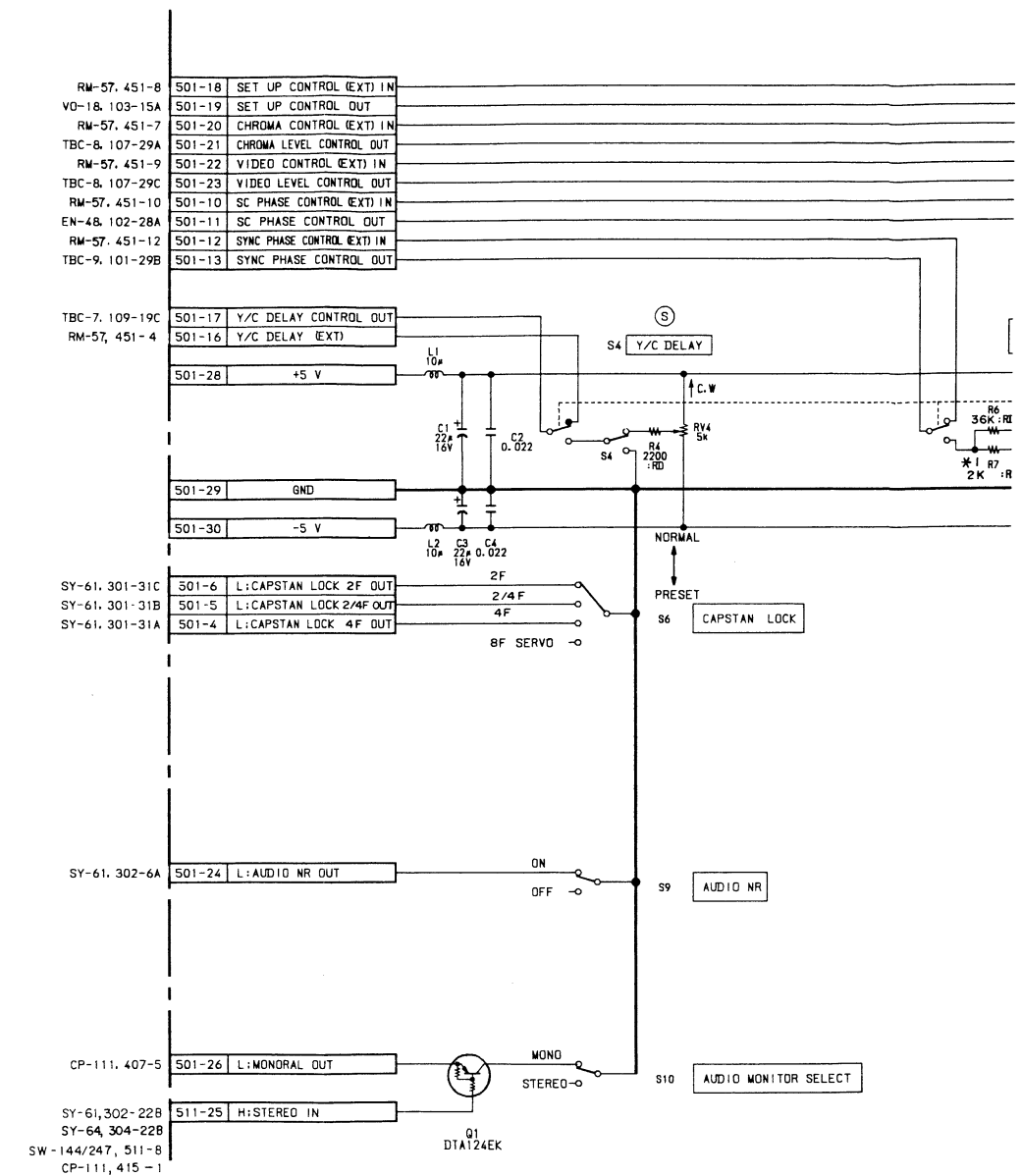
CP-101AP; REFERENCE VIDEO INPUT  
CP-103AP; SUB CONTROL PANEL



**CP-101AP**  
1-622-570-21  
BVW-60P  
BVW-65P  
BVW-95P

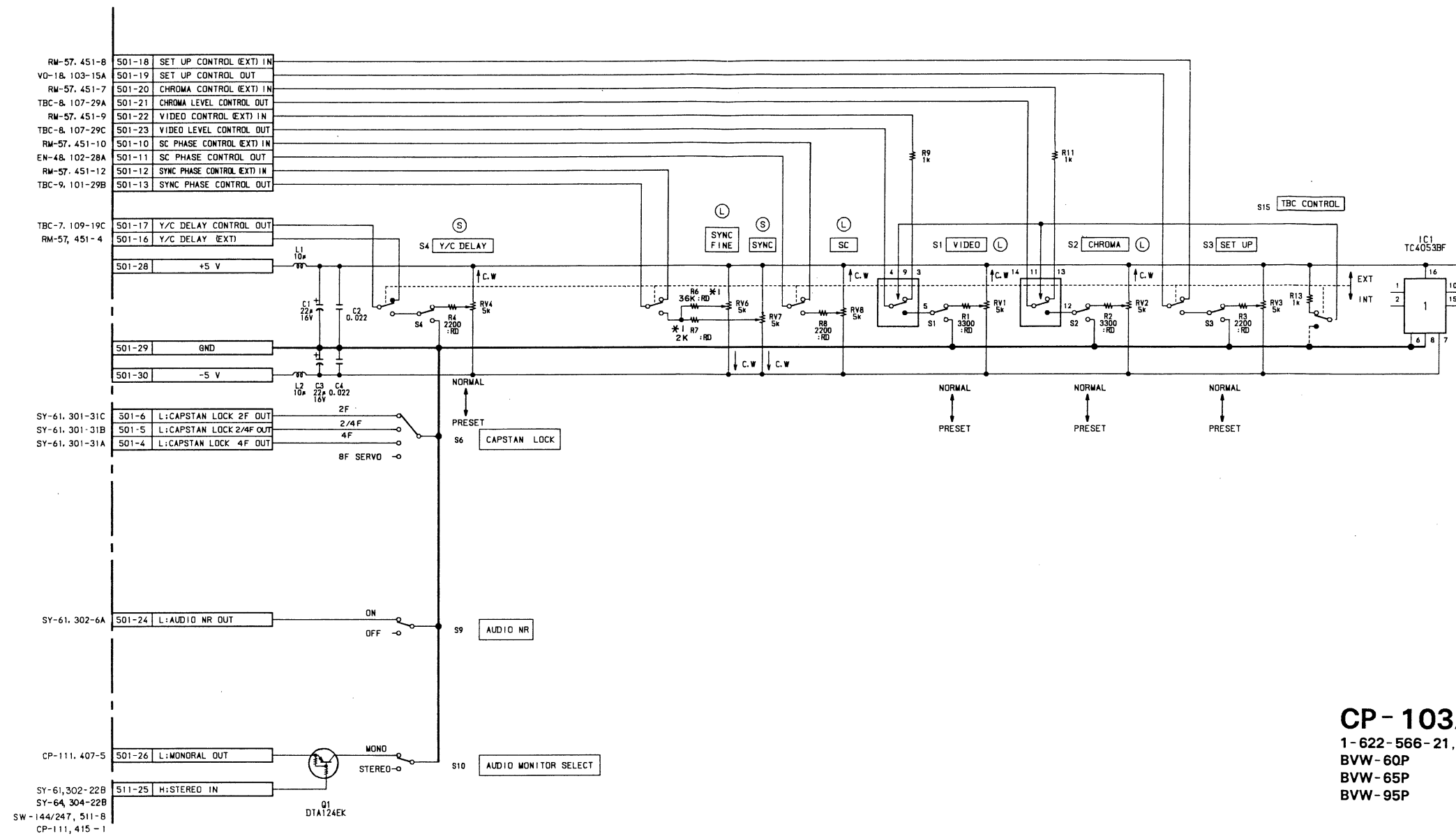
## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R6 39k → 36k R7 2200 → 2k	S/N 12177 ~



NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R6 39k → 36k R7 2200 → 2k	S/N 12177 ~

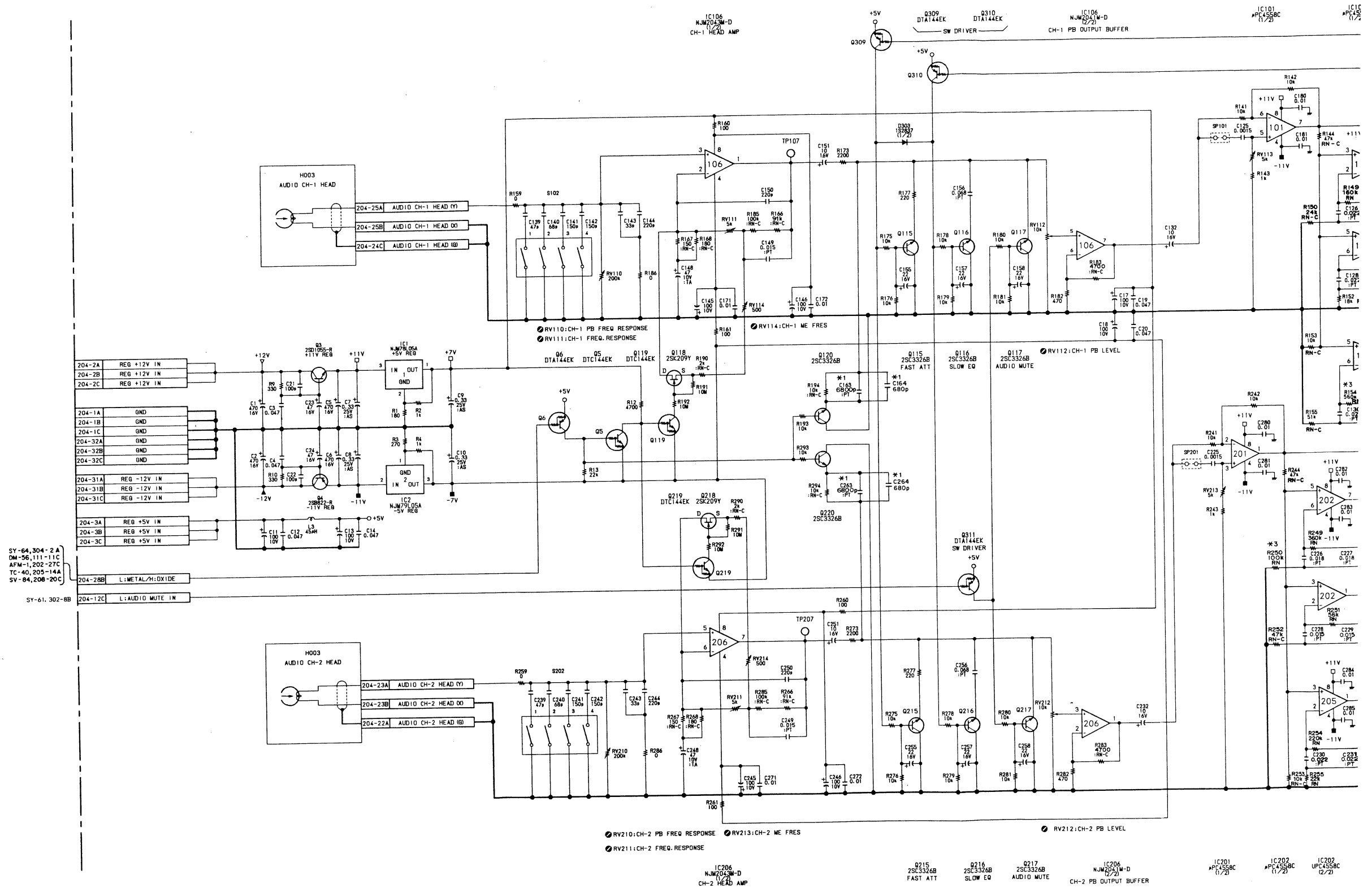


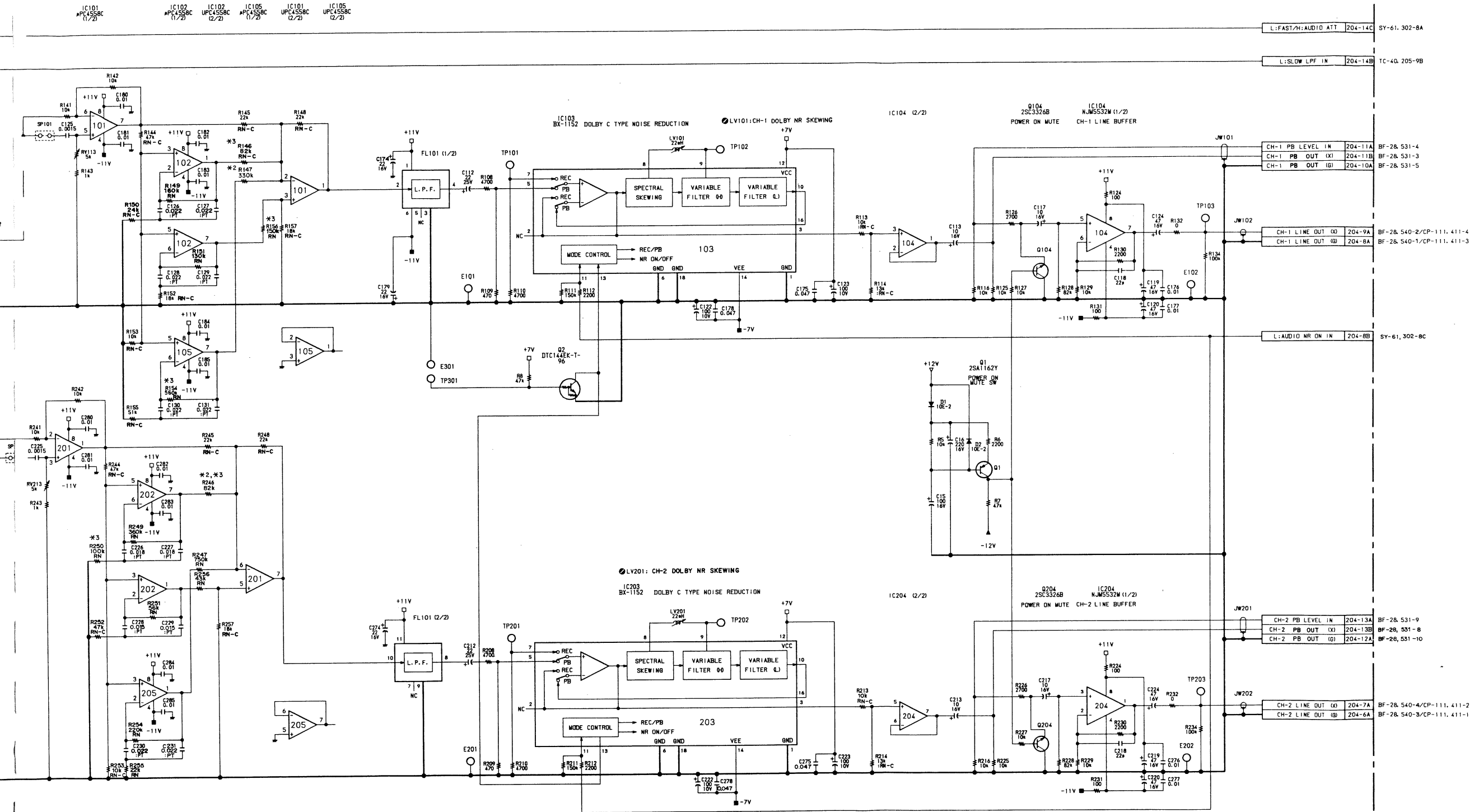
**CP-103AP**  
1-622-566-21, 22  
BVW-60P  
BVW-65P  
BVW-95P

AU-118P; LNG AUDIO HEAD AMPLIFIER

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C163 8200pF → 6800pF C263 8200pF → 6800pF C164 680pF → ADDED C264 680pF → ADDED	S/N 10192 ~
*2	R195 430k → R147 330k R246 330k → 180k	S/N 11155 ~
*3	R146 62k → 82k R154 330k → 560k R156 120k → 150k R246 180k → 82k R250 56k → 100k	S/N 12032 ~



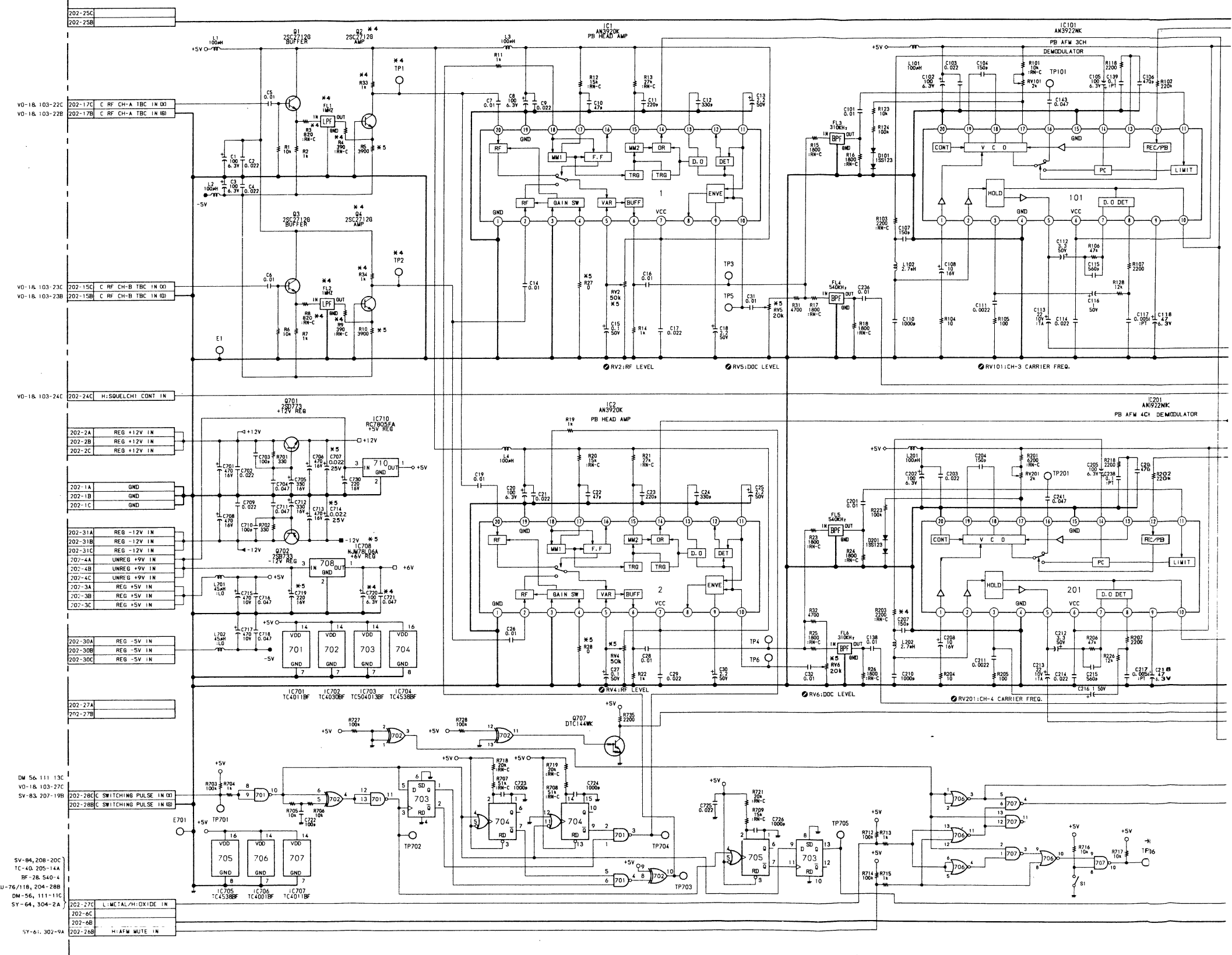


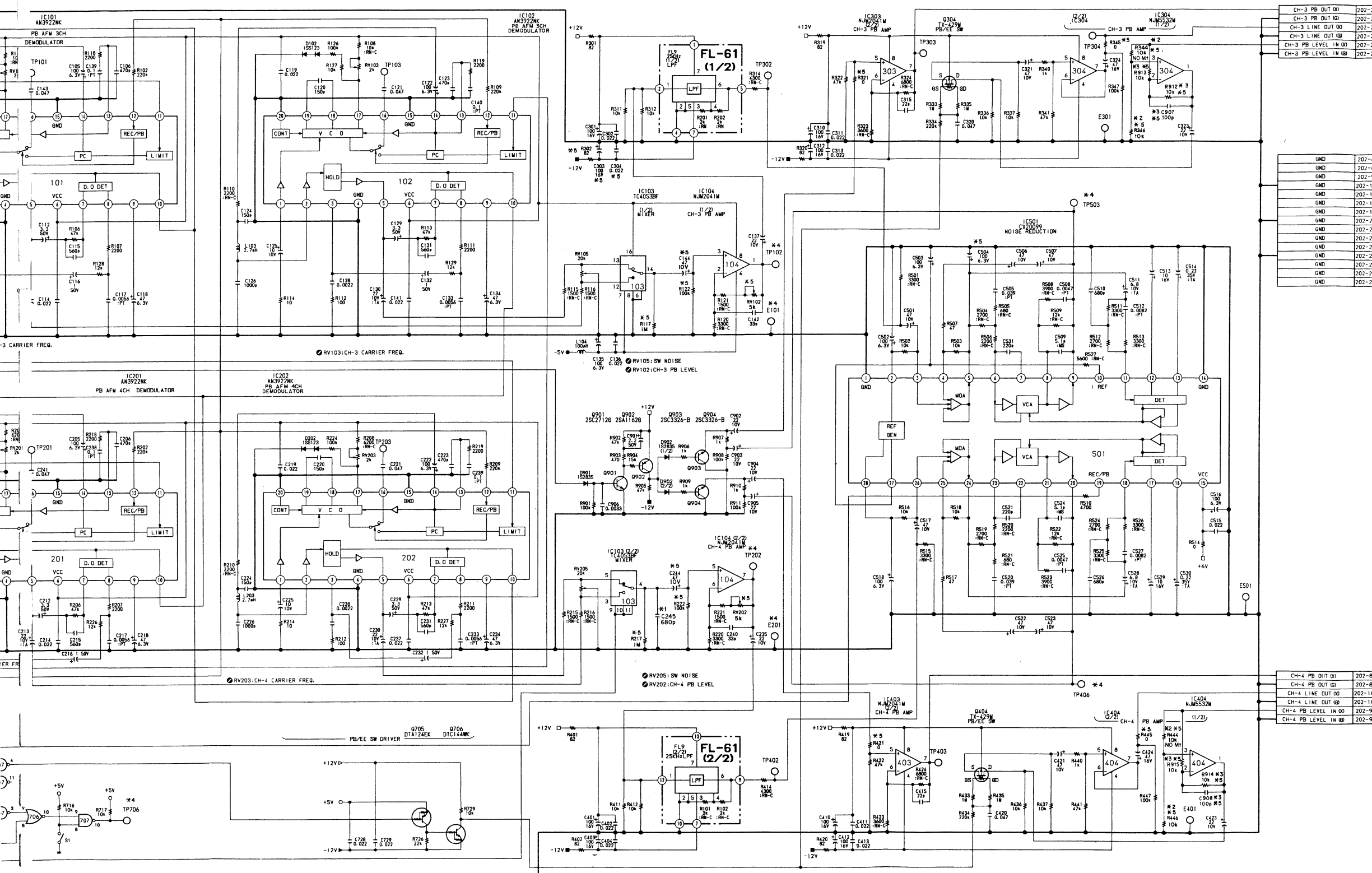
**AU-118P**  
 1-626-092-11  
 BVW-60P  
 BVW-65P  
 BVW-95P

AFM-1 A; AFM AUDIO DEMODULATOR  
FL-61; AUDIO LPF

**NOTE**

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C245 680pF ADDED	S/N 10890 ~
*2	R344 1k DELETED R444 1k DELETED R346 100k → 0 R446 100k → 0	S/N 11340 ~
*3	ADDED C907, C908, R912 R913, R914, R915	S/N 11425 ~
*4	DELETED C720, C721, FL1, FL2 Q2, Q4, R4, R9, R33 R34, TP1, TP2, TP102 TP202, TP406, TP503 TP706, E101, E201 CHANGE C207 100pF → 150pF R3 390 → 820 R8 390 → 820	S/N 11677 ~
*5	DELETED C144, C244; C303 C304, C504, C719 C907, C908, IC708 R5, R10, R27, R28 R122, R222, R302 R321, R345, R421 R445, R912, R913 R914, R915 CHANGE C707 0.33/50V → 0.022/25V C714 0.33/50V → 0.022/25V R117 100k → 1M R217 100k → 1M R344 1k → 10k R346 0 → 10k R444 1k → 10k R446 0 → 10k RV2 47k → 50k RV4 47k → 50k RV5 22k → 20k RV6 22k → 20k RV102 4700 → 5k RV202 4700 → 5k	S/N 11852 ~





CH-3 PB OUT (O)	202-210	BF-28 532-3
CH-3 PB OUT (I)	202-211	NC
CH-3 LINE OUT (O)	202-230	BF-28 540-6 /CP-111. 409-4
CH-3 LINE OUT (I)	202-231	BF-28 540-5/CP-111. 409-3
CH-3 PB LEVEL IN (O)	202-220	BF-28 532-4
CH-3 PB LEVEL IN (I)	202-221	BF-28 532-5

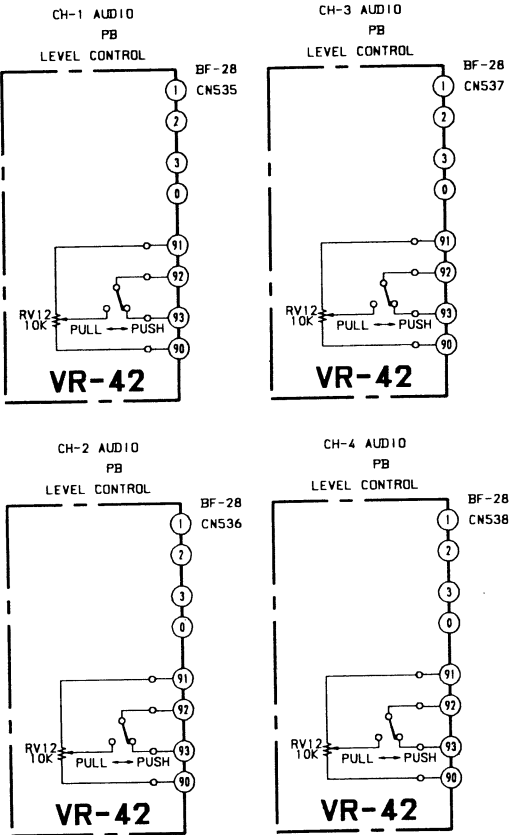
GND	202-6A
GND	202-8A
GND	202-9A
GND	202-10A
GND	202-15A
GND	202-16A
GND	202-17A
GND	202-21A
GND	202-22A
GND	202-23A
GND	202-25A
GND	202-26A
GND	202-28A
GND	202-29A
GND	202-29B

CH-4 PB OUT (O)	202-BC	BF-28 532-8
CH-4 PB OUT (I)	202-BB	NC
CH-4 LINE OUT (O)	202-10C	BF-28 540-8 /CP-111. 409-2
CH-4 LINE OUT (I)	202-10B	BF-28 540-7 /CP-111. 409-1
CH-4 PB LEVEL IN (O)	202-9C	BF-28 532-9
CH-4 PB LEVEL IN (I)	202-9B	BF-28 532-10

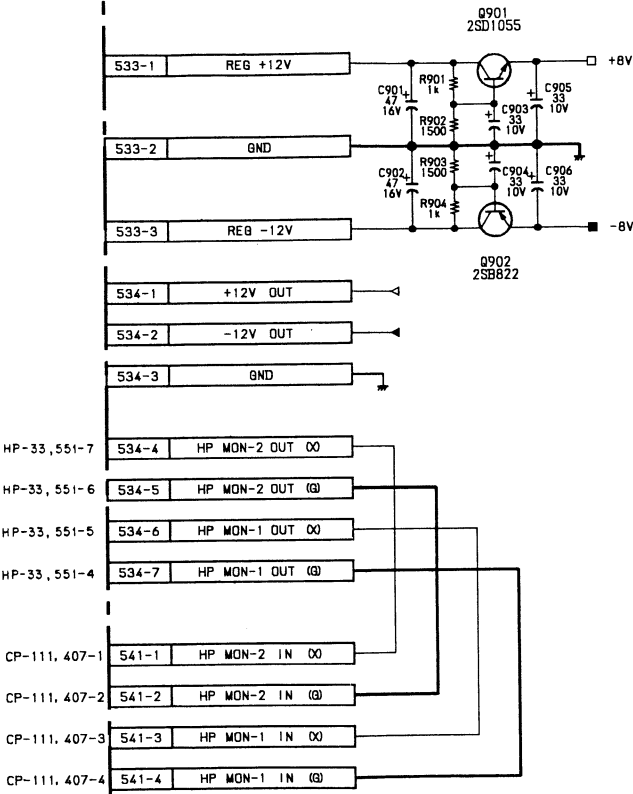
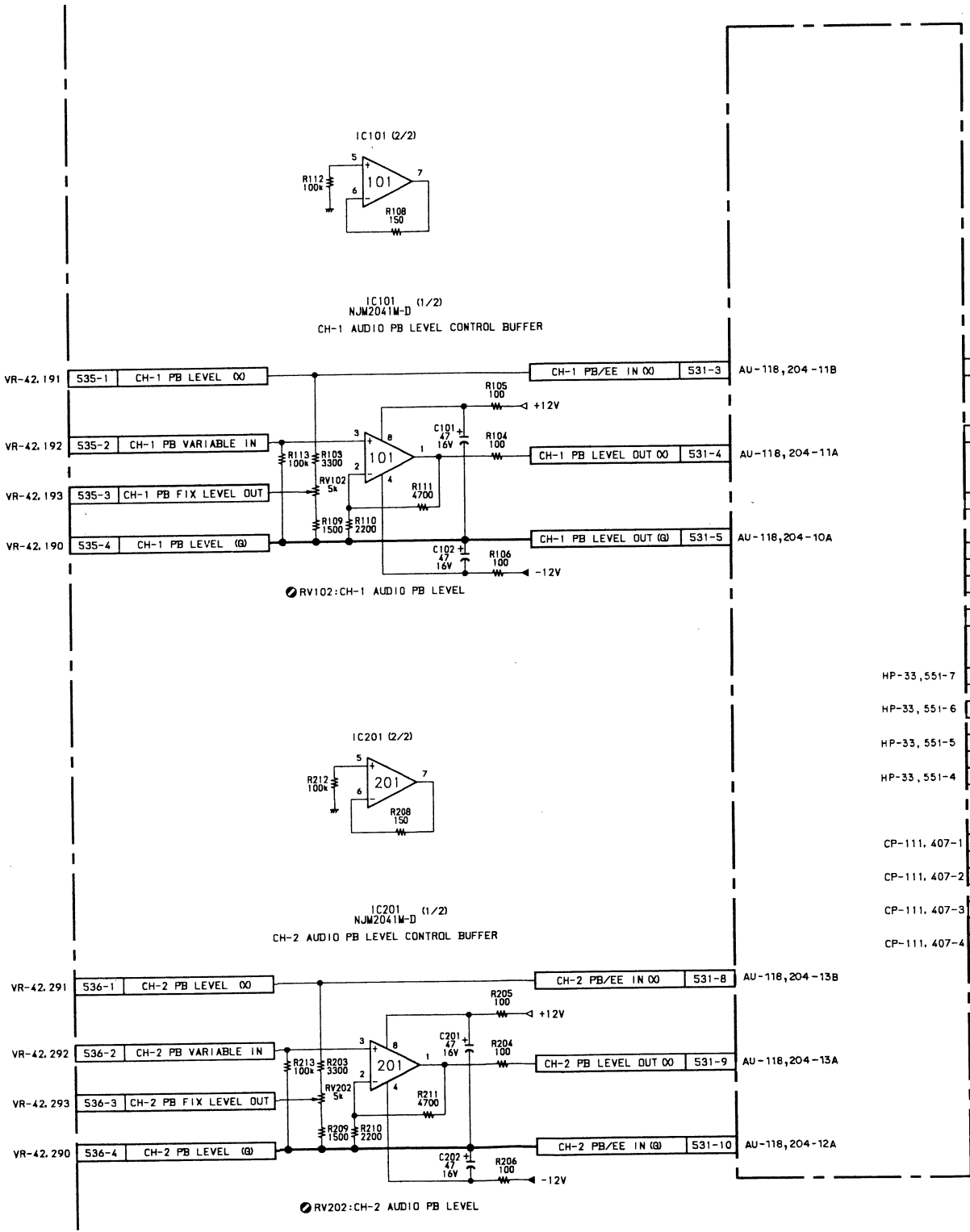
**AFM-1A**  
1-622-569-21, 22  
BVW-60P  
BVW-65P  
BVW-95P



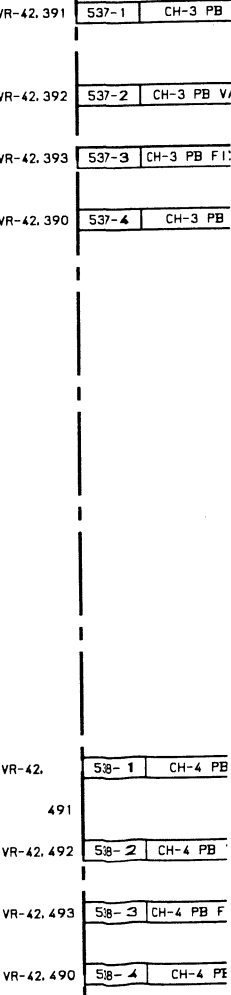
BF-28A (1/2); AUDIO PB LEVEL CONTROL  
VR-42; AUDIO PB VOLUME



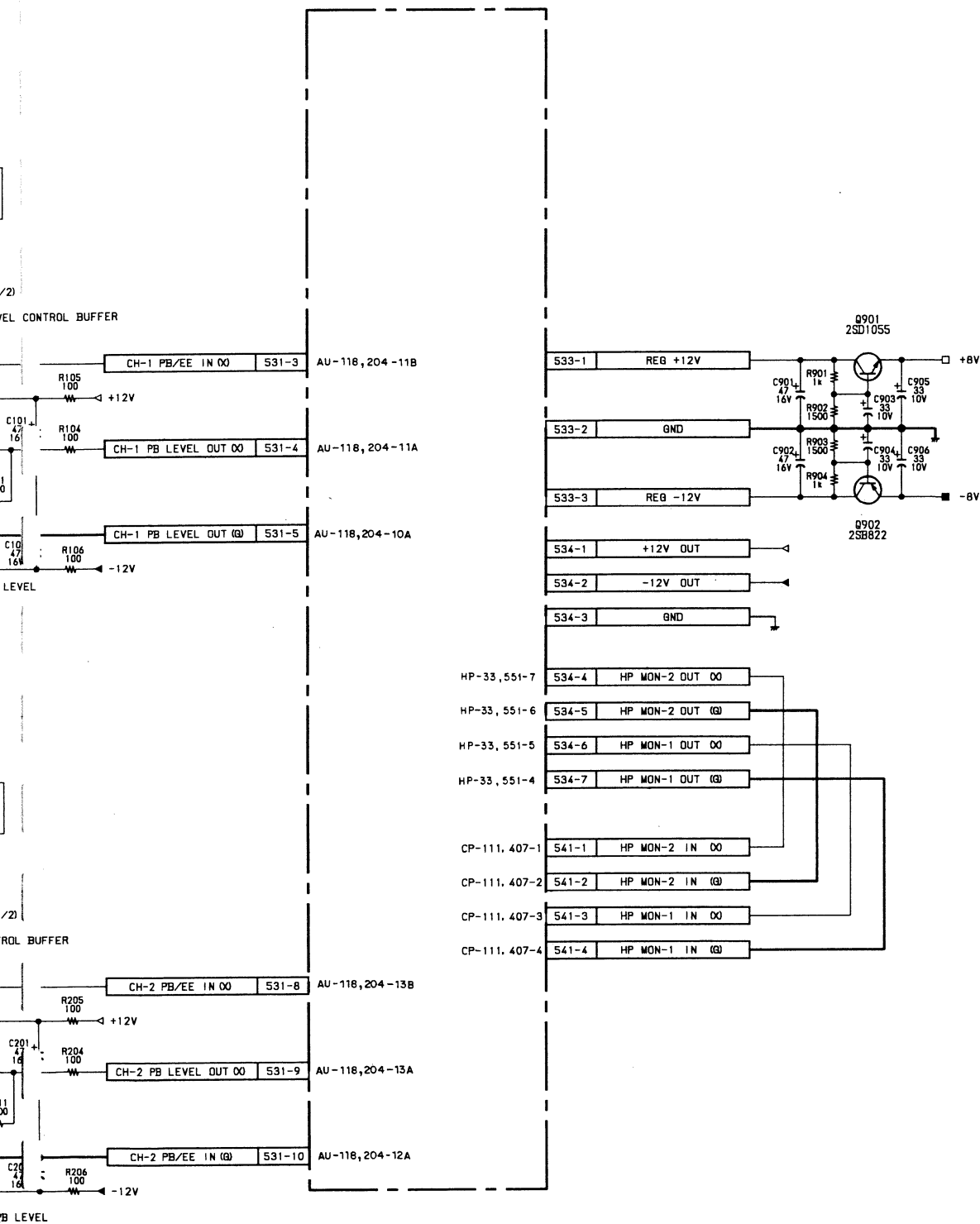
16-148



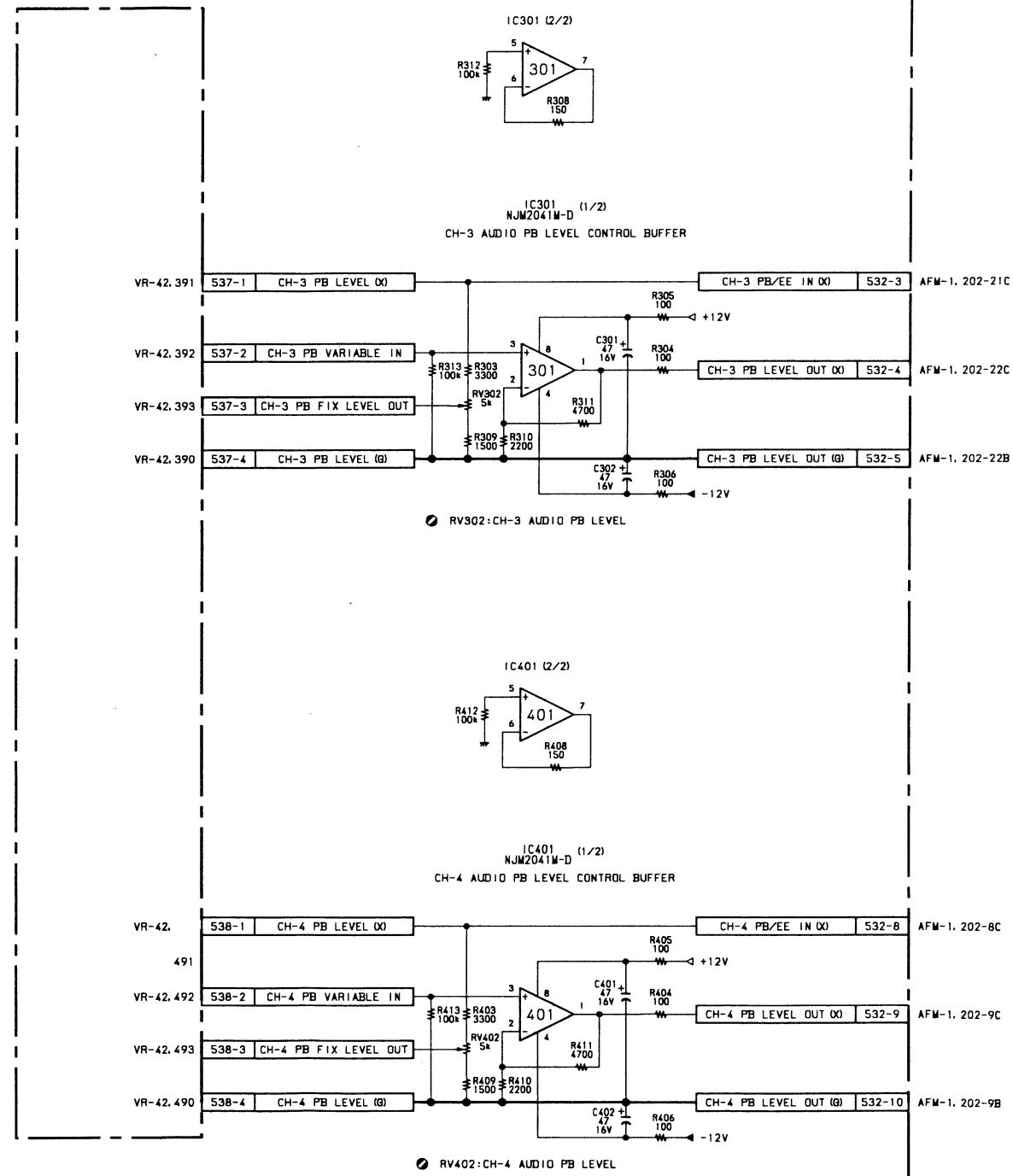
16-149



H



16-149



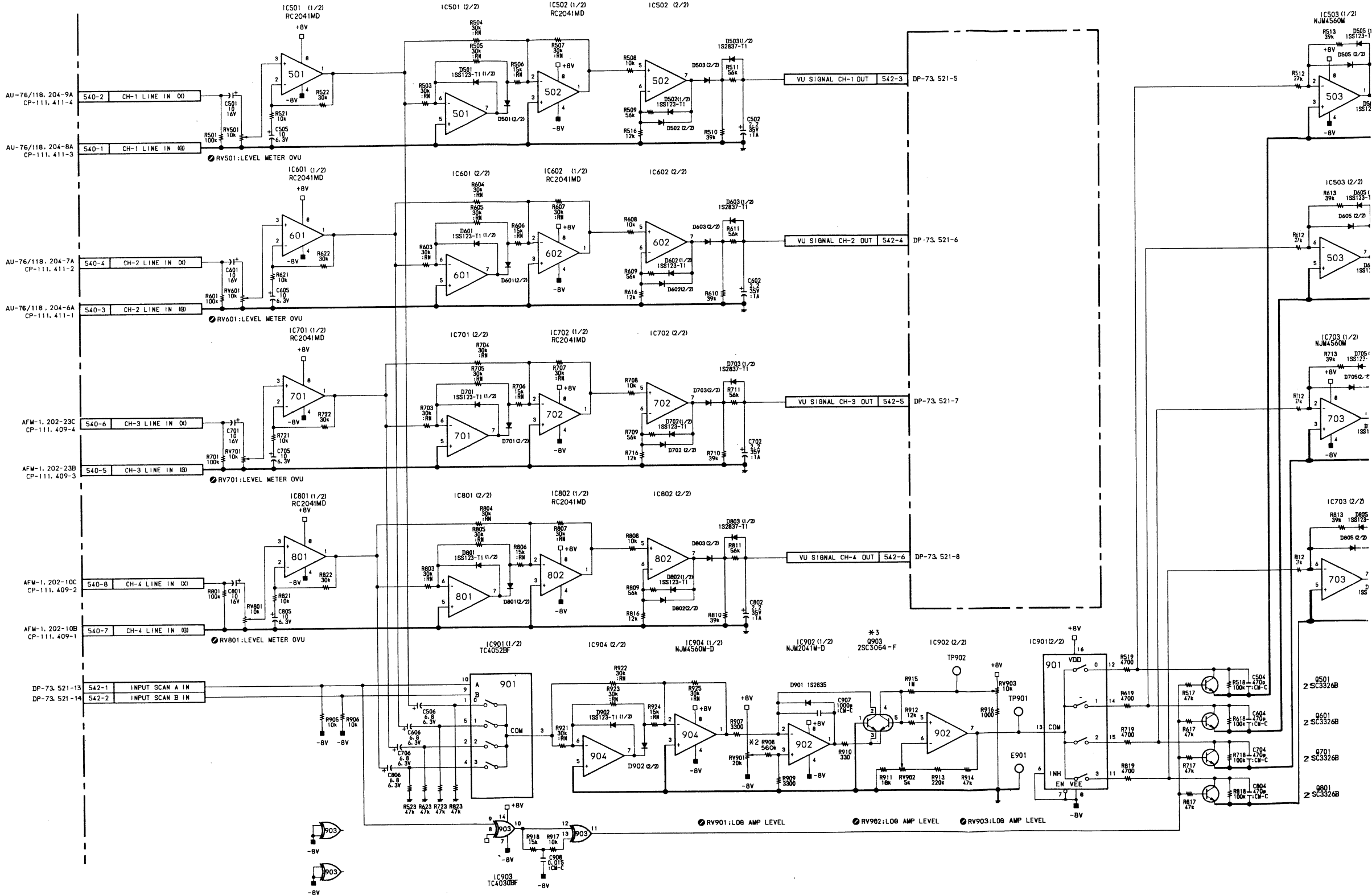
16-150

BF-28A (1/2)  
1-622-574-22, 23, 24  
BVW-60P  
BVW-65P  
BVW-95P

BF-28A (2/2) ; AUDIO LEVEL VU/dB DETECTOR

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R926 0 ADDED R927 0 ADDED R928 0 ADDED R929 0 ADDED	S/N 10544 ~
*2	R908 1M → 560k	S/N 12112 ~
*3	Q903 2SC2259-G → 2SC3064-F	S/N 12770 ~



A

B

C

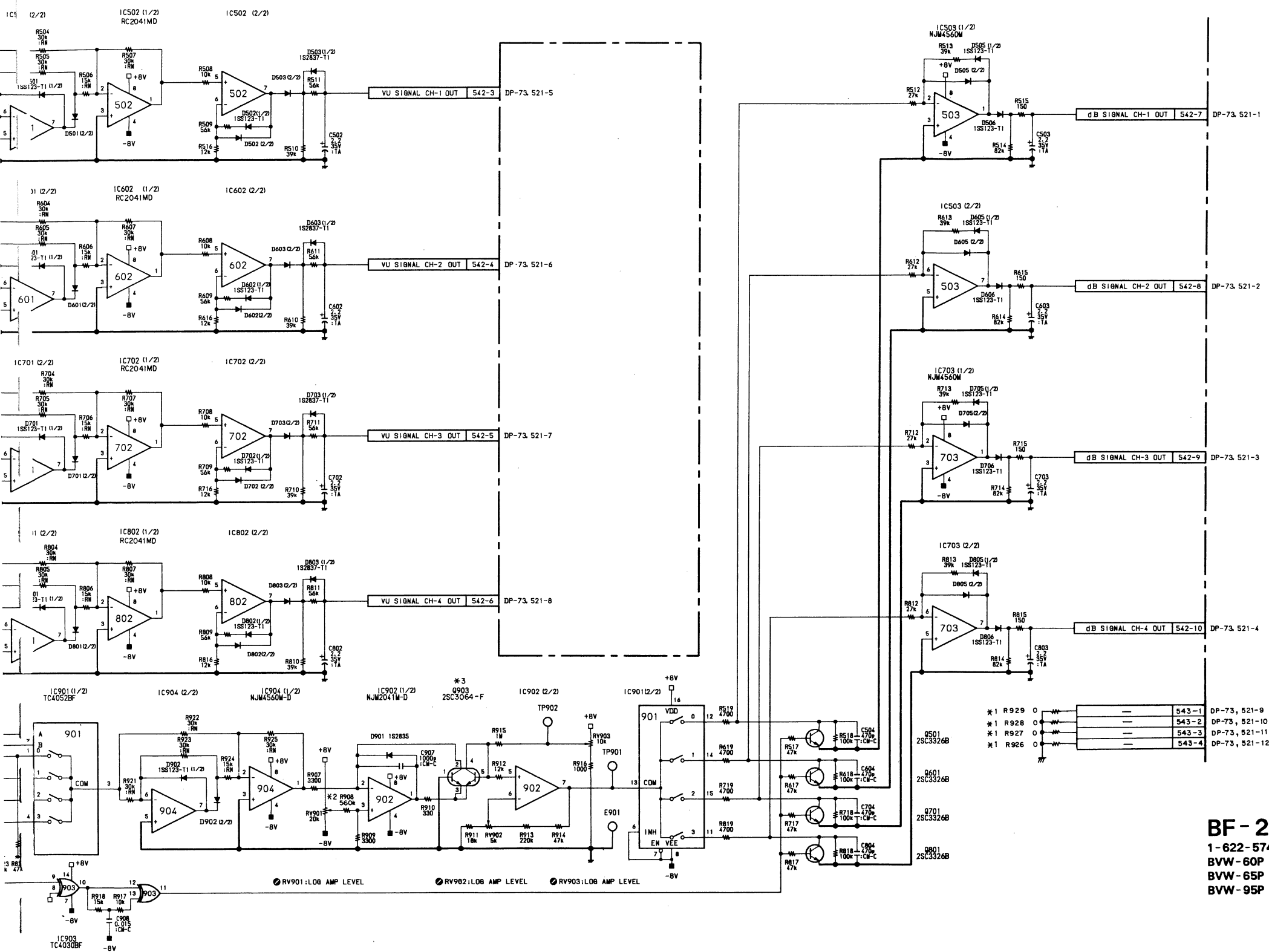
D

E

F

G

H



BF-28A (2/2)

1-622-574-22, 23, 24

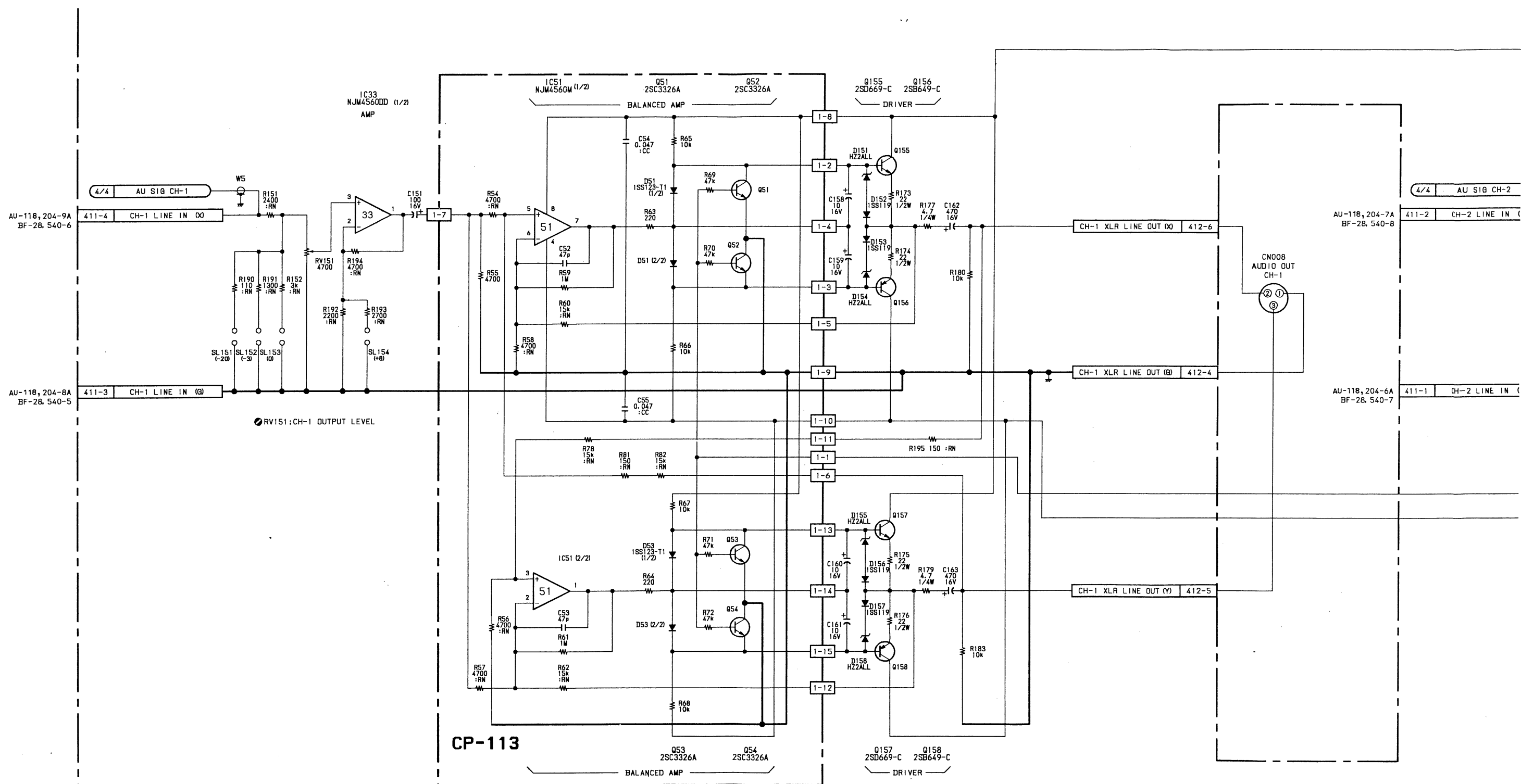
BVW-60P

BVW-65P

BVW-95P

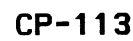
CP-111 (1/4); AUDIO OUTPUT AMPLIFIER/PRIVER  
CP-113; AUDIO BALANCED AMPLIFIER

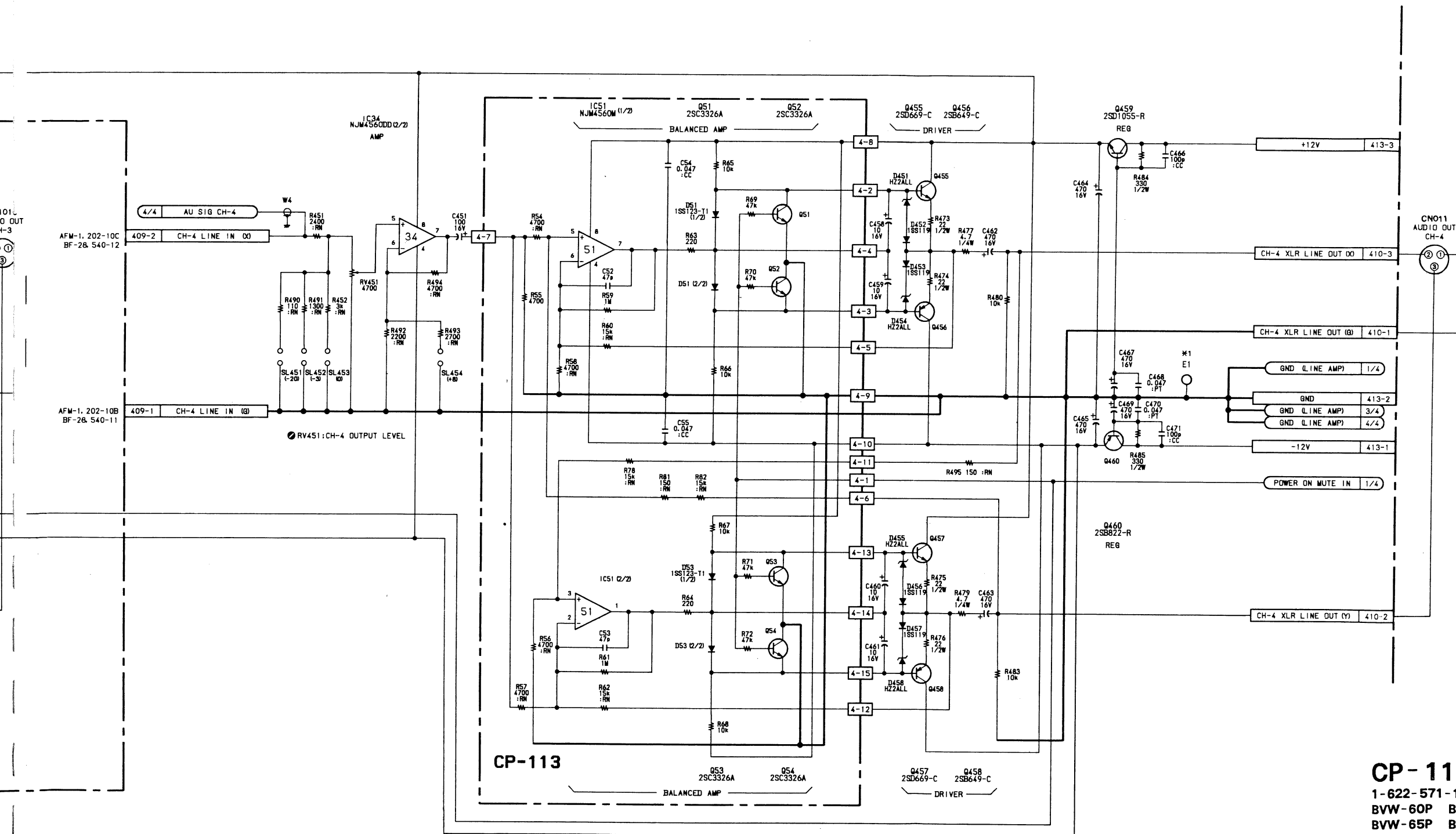
Up to S/N 12854



Up to S/N 12854

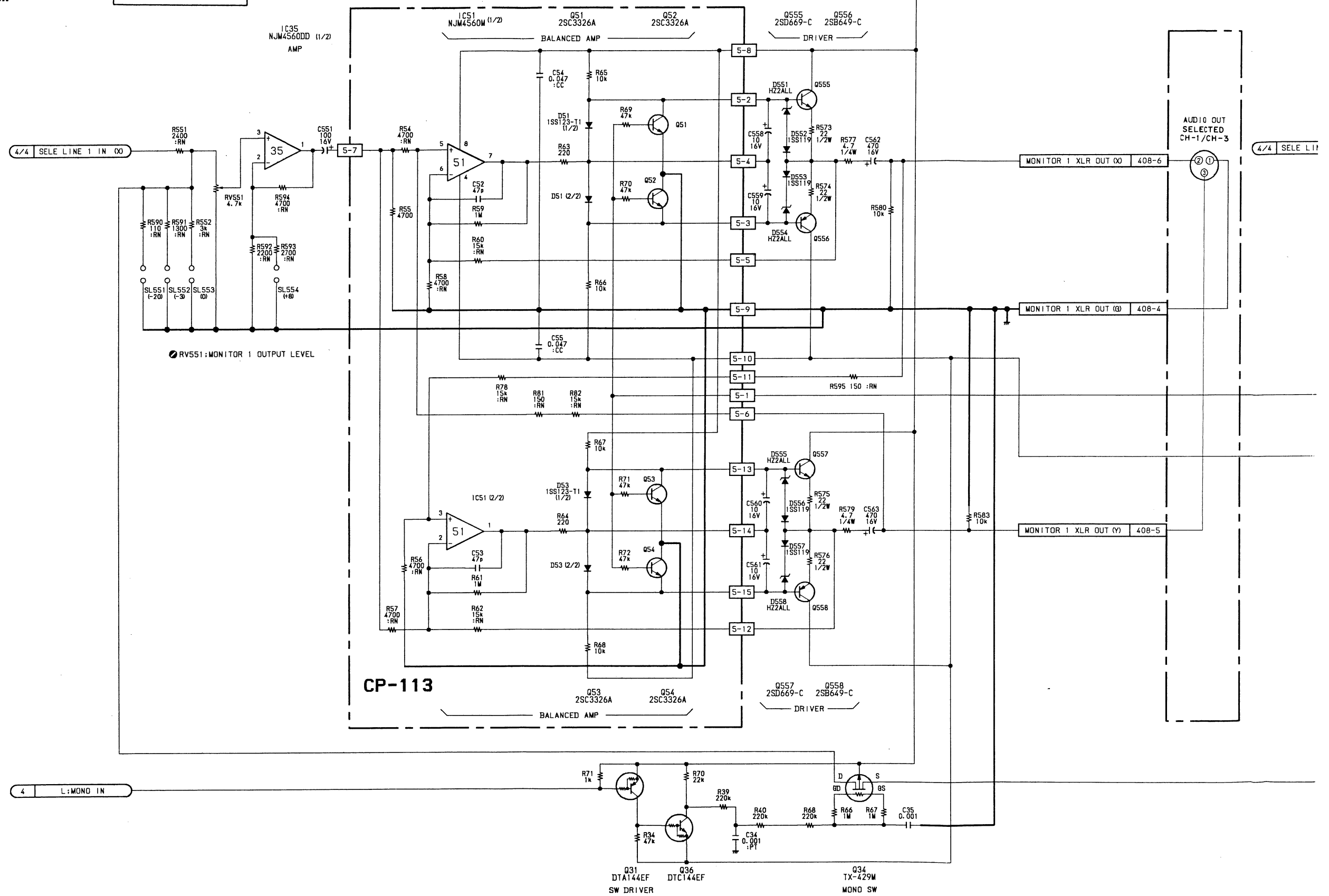
MARK	CHANGE INFORMATION	SERIAL NO.
*1	E1 DELETED	S/N 11340 ~





CP-111 (3/4); AUDIO OUTPUT AMPLIFIER/DRIVER  
CP-113; AUDIO BALANCED AMPLIFIER

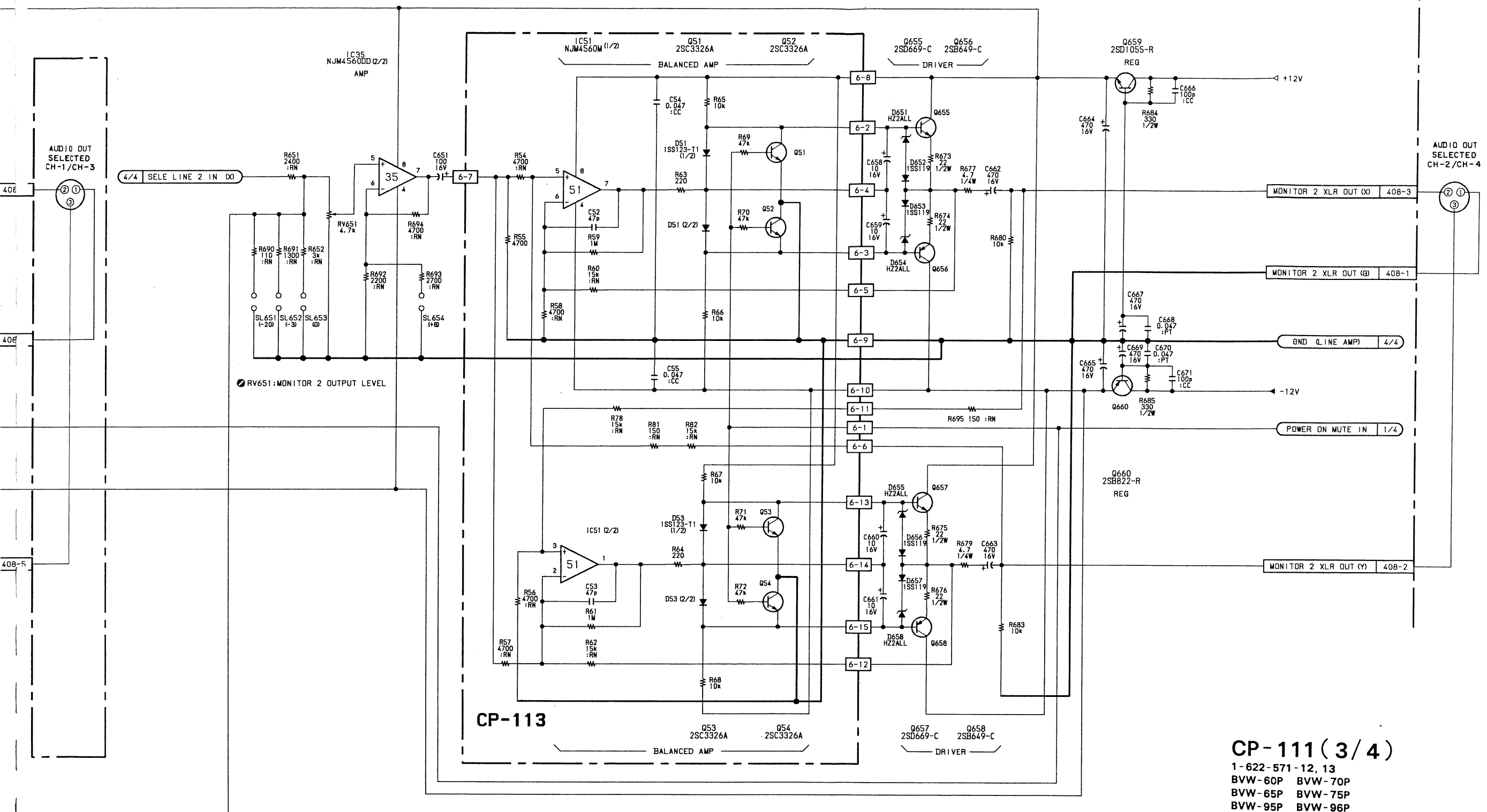
Up to S/N 12854



16-177 (a)

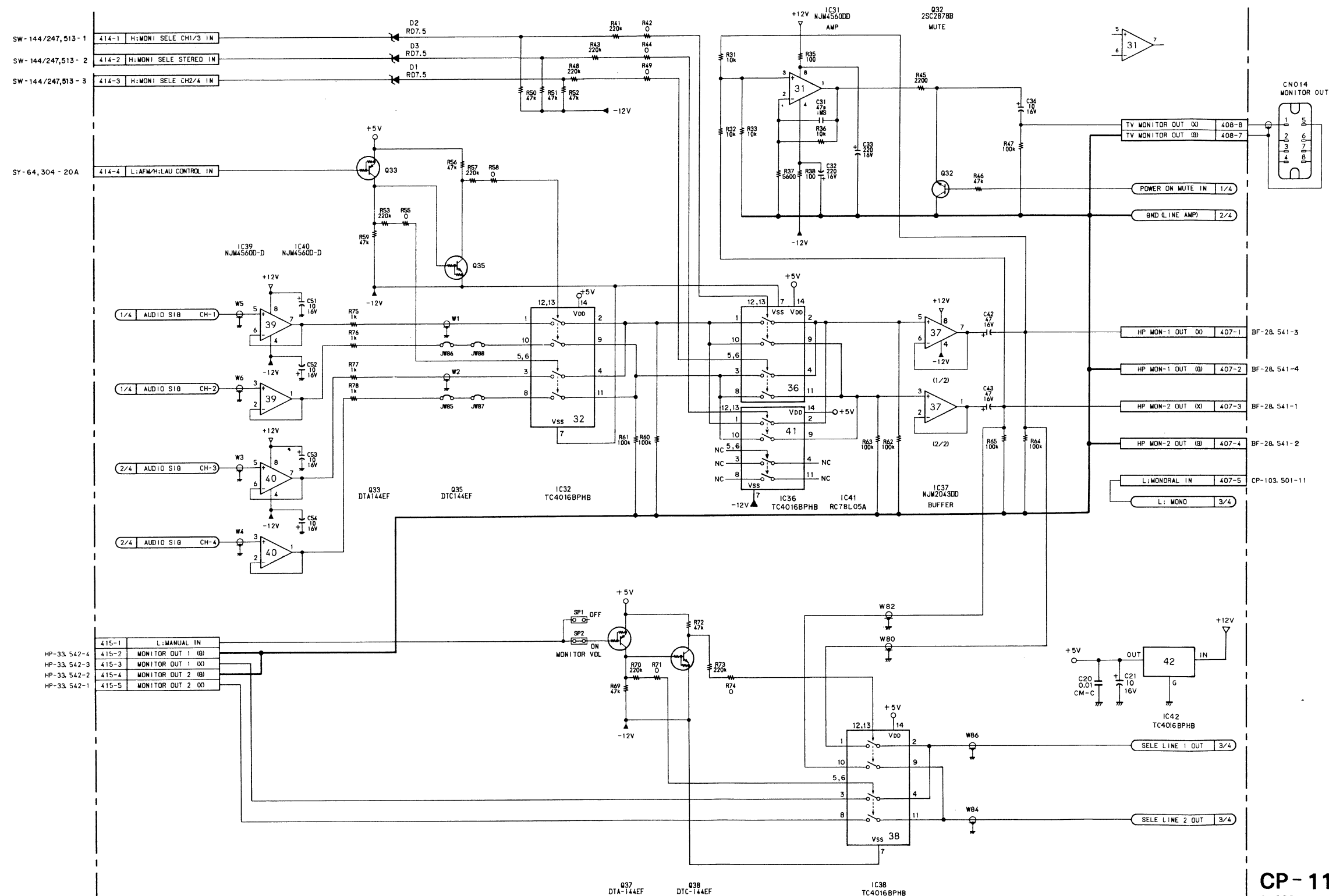
16-178 (a)





P-111 (4/4); AUDIO MONITOR SELECT/OUTPUT  
 HP-33; HEADPHONES AMPLIFIER/JACK  
 VR-62; HEADPHONES LEVEL VOLUME

Up to S/N 12854



CP-111 (4/4)  
 1-622-571-13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

16-185 (a)

16-186 (a)

A

B

C

D

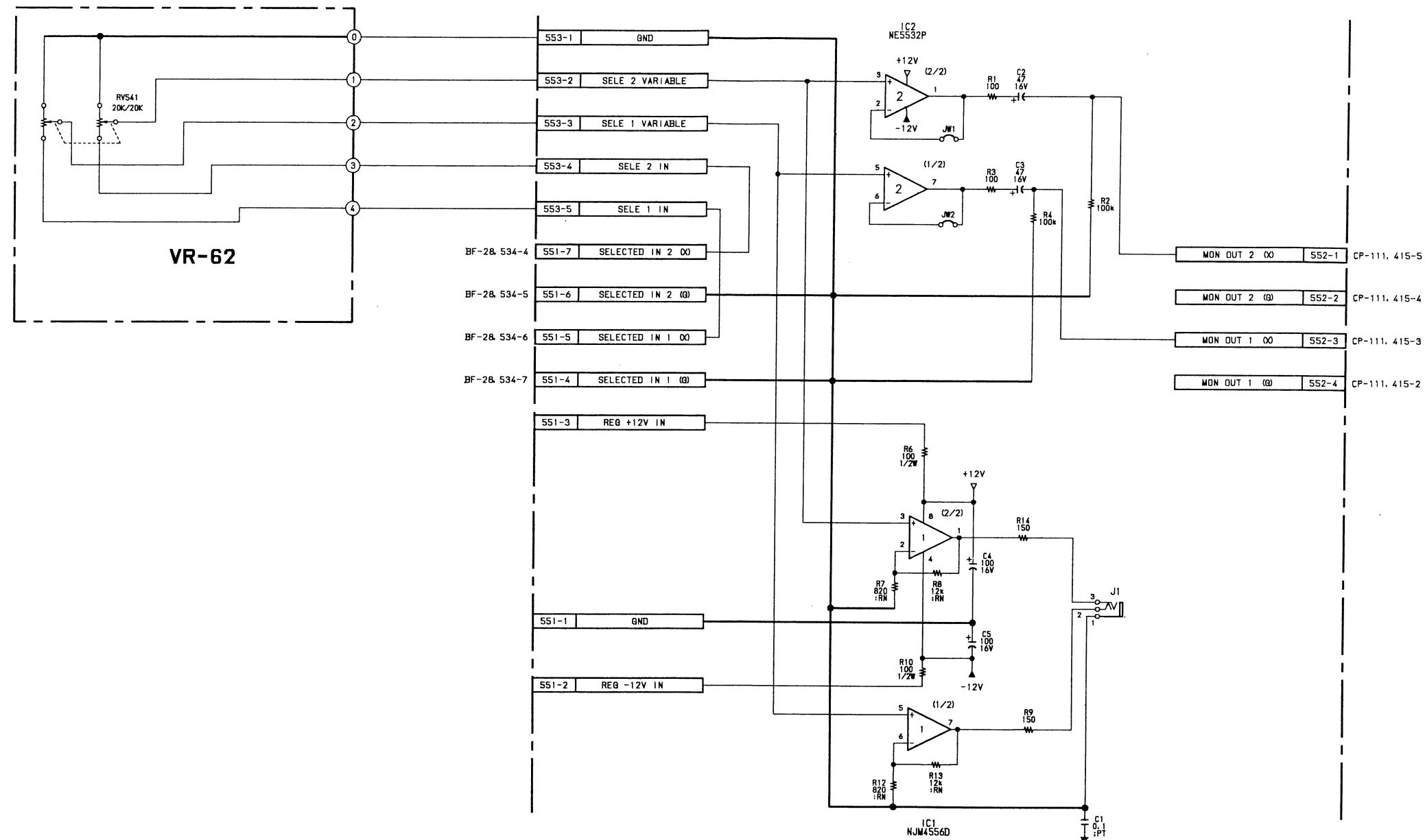
E

F

G

H

I



HP-33

1-622-590-13

BVW-60P BVW-75P

BVW-65P BVW-95P

BVW-70P BVW-96P

16-187 (a)

16-188 (a)

J

K

L

M

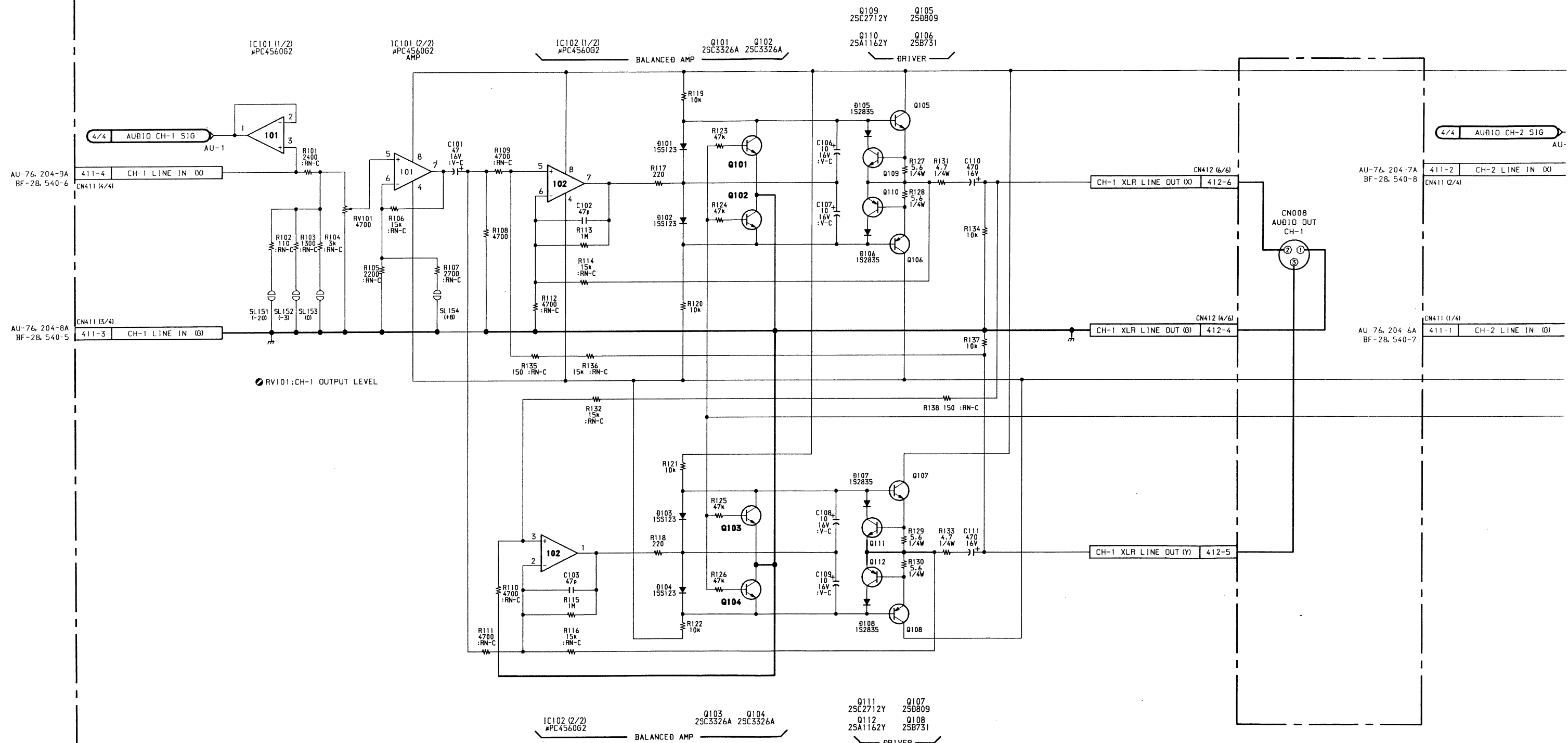
N

O

P

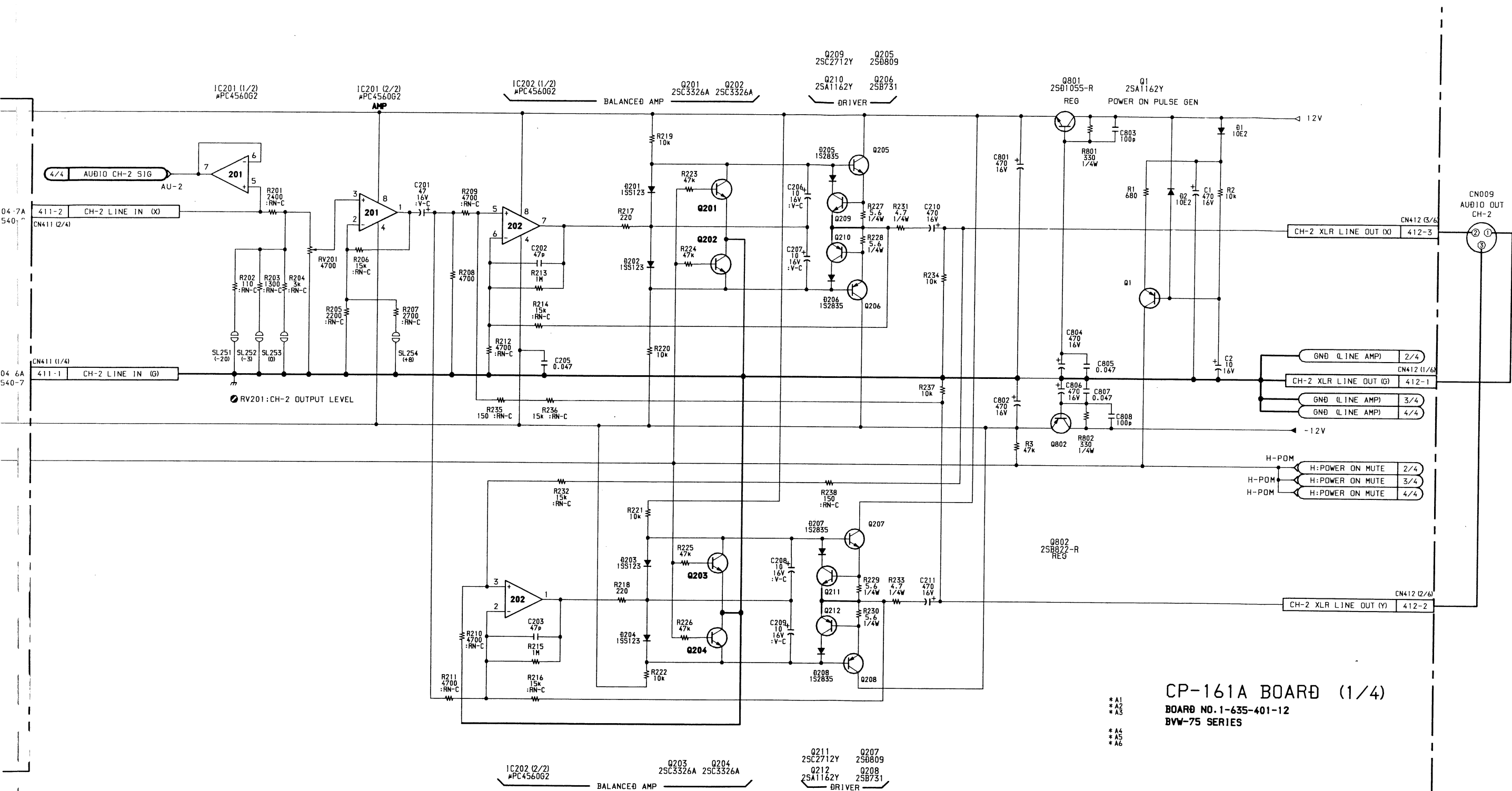
CP-161A (1/4); AUDIO OUTPUT BALANCED AMPLIFIER/DRIVER

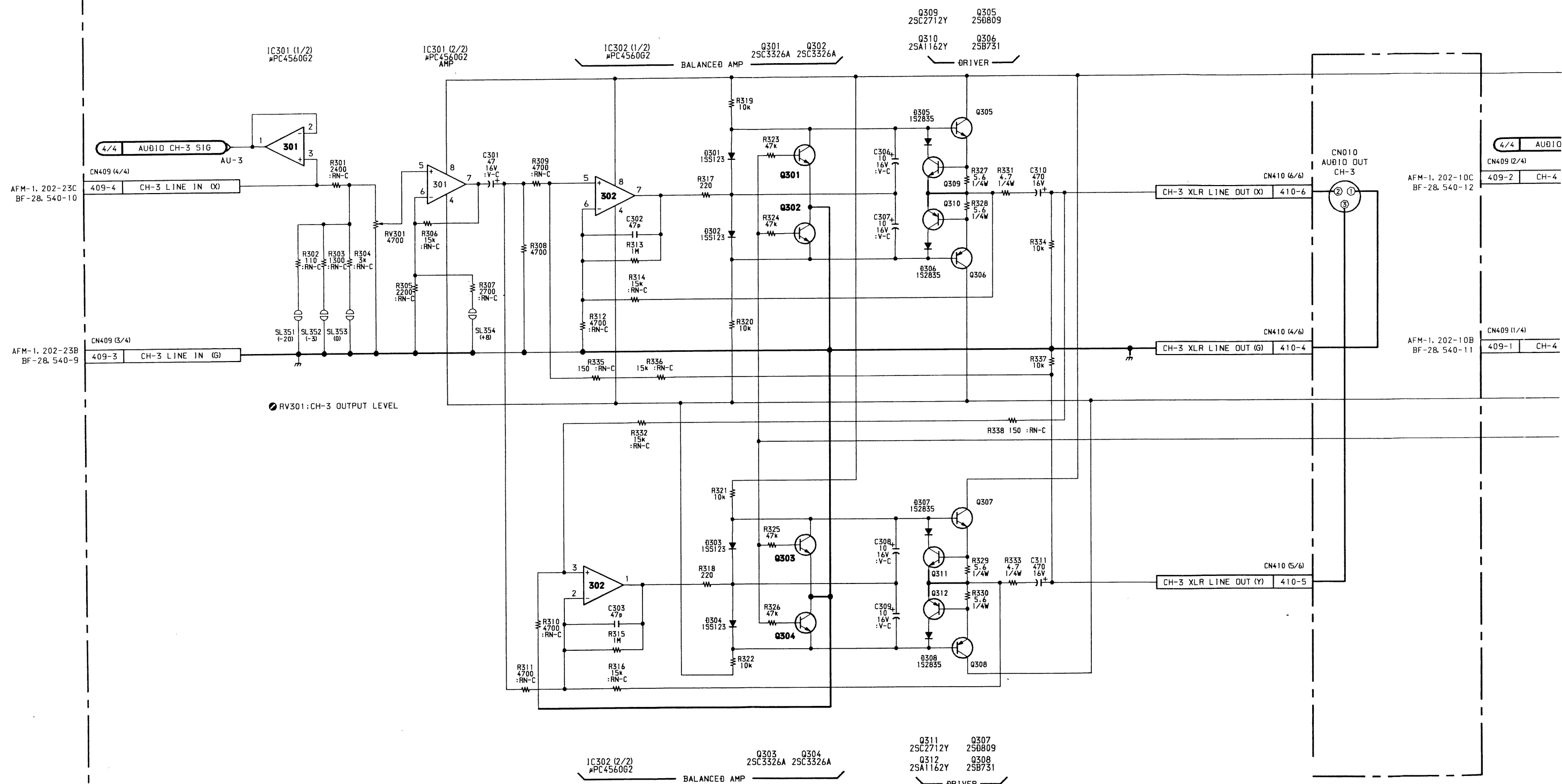
S/N 12855 and higher



16-161 (b)

16-162 (b)

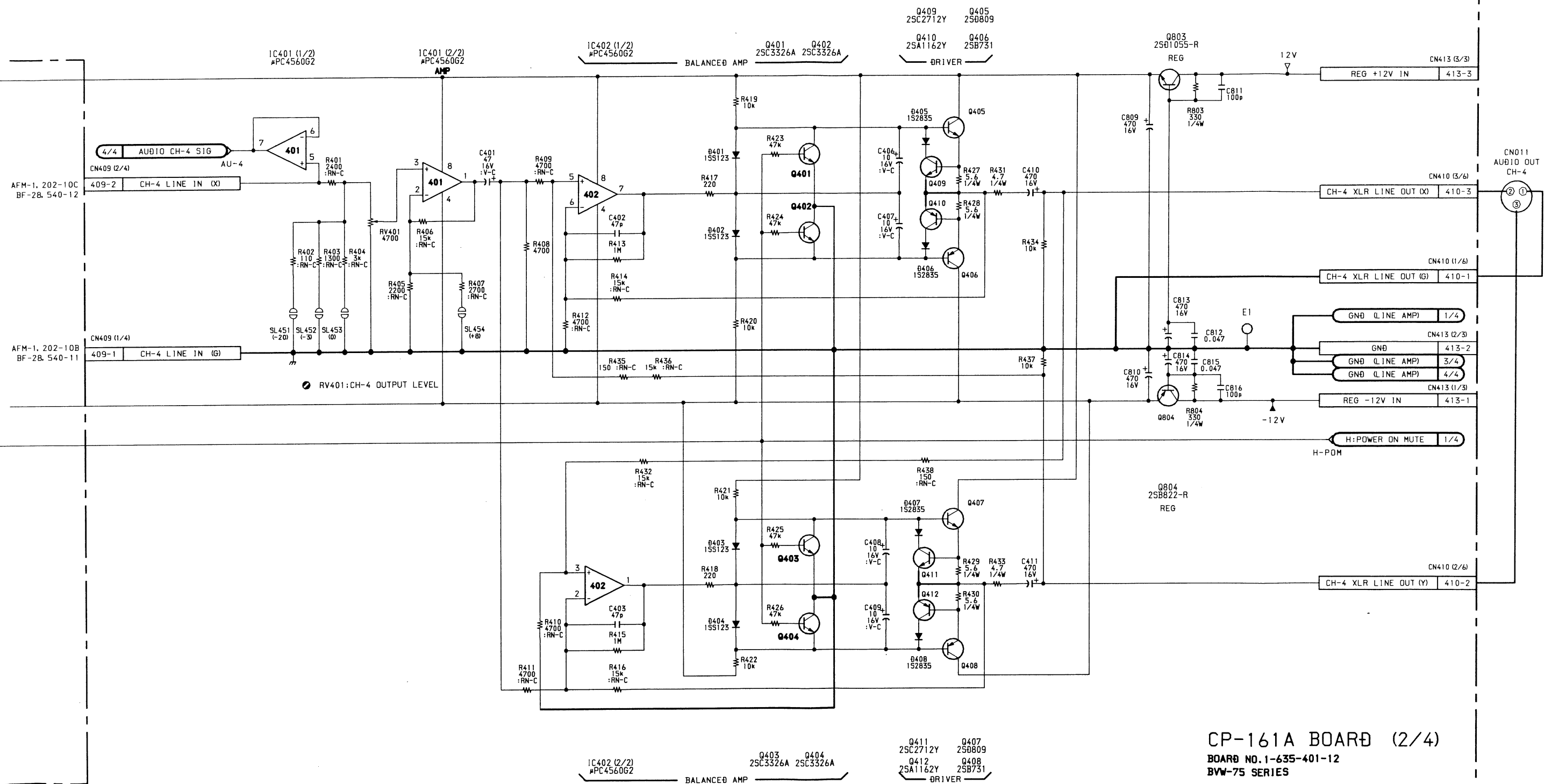




16-169 (b)

16-170 (b)

I

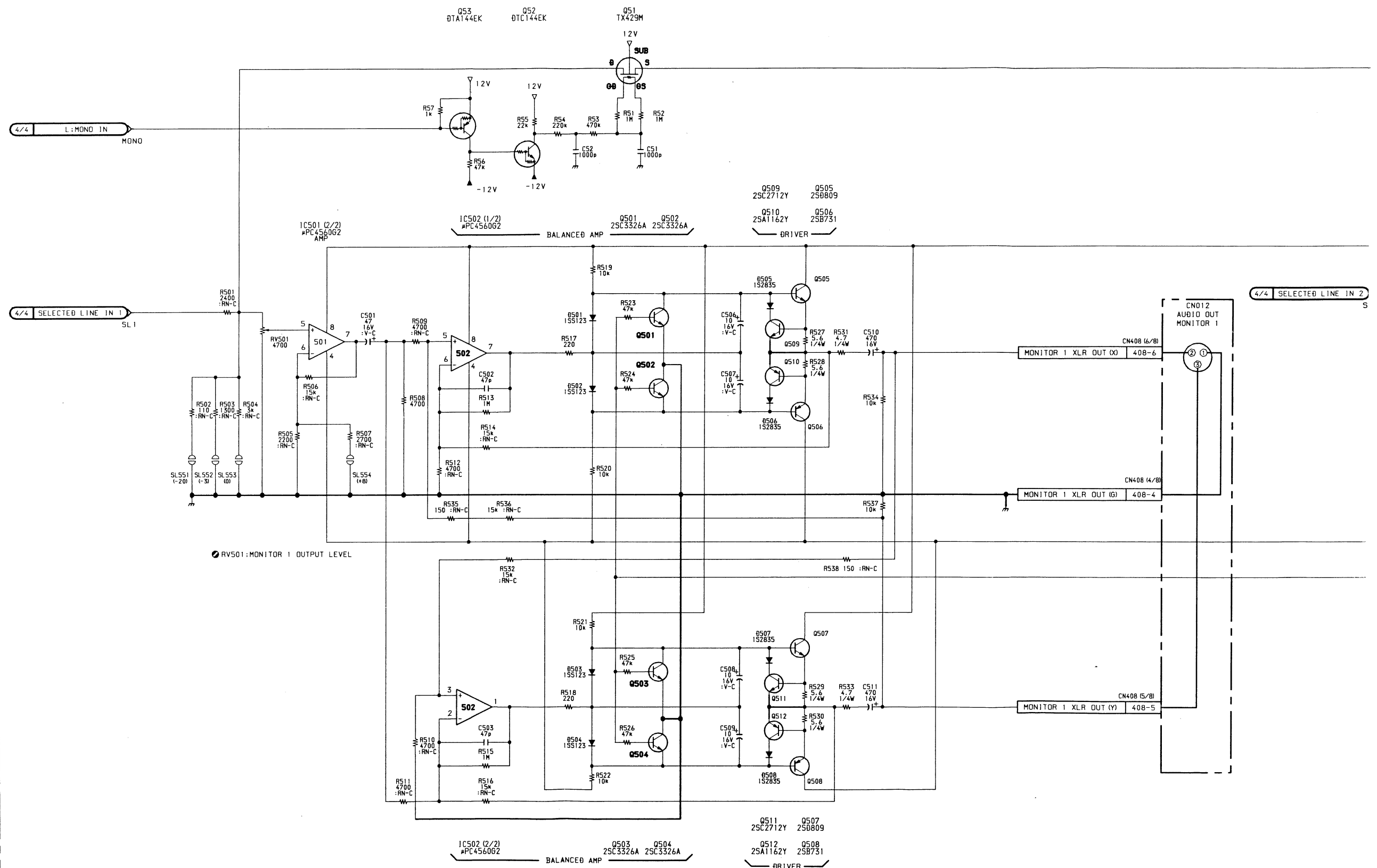


CP-161A BOARD (2/4)

BOARD NO. 1-635-401-12  
BVM-75 SERIES

CP-161A (3/4); AUDIO OUTPUT BALANCED AMPLIFIER/DRIVER

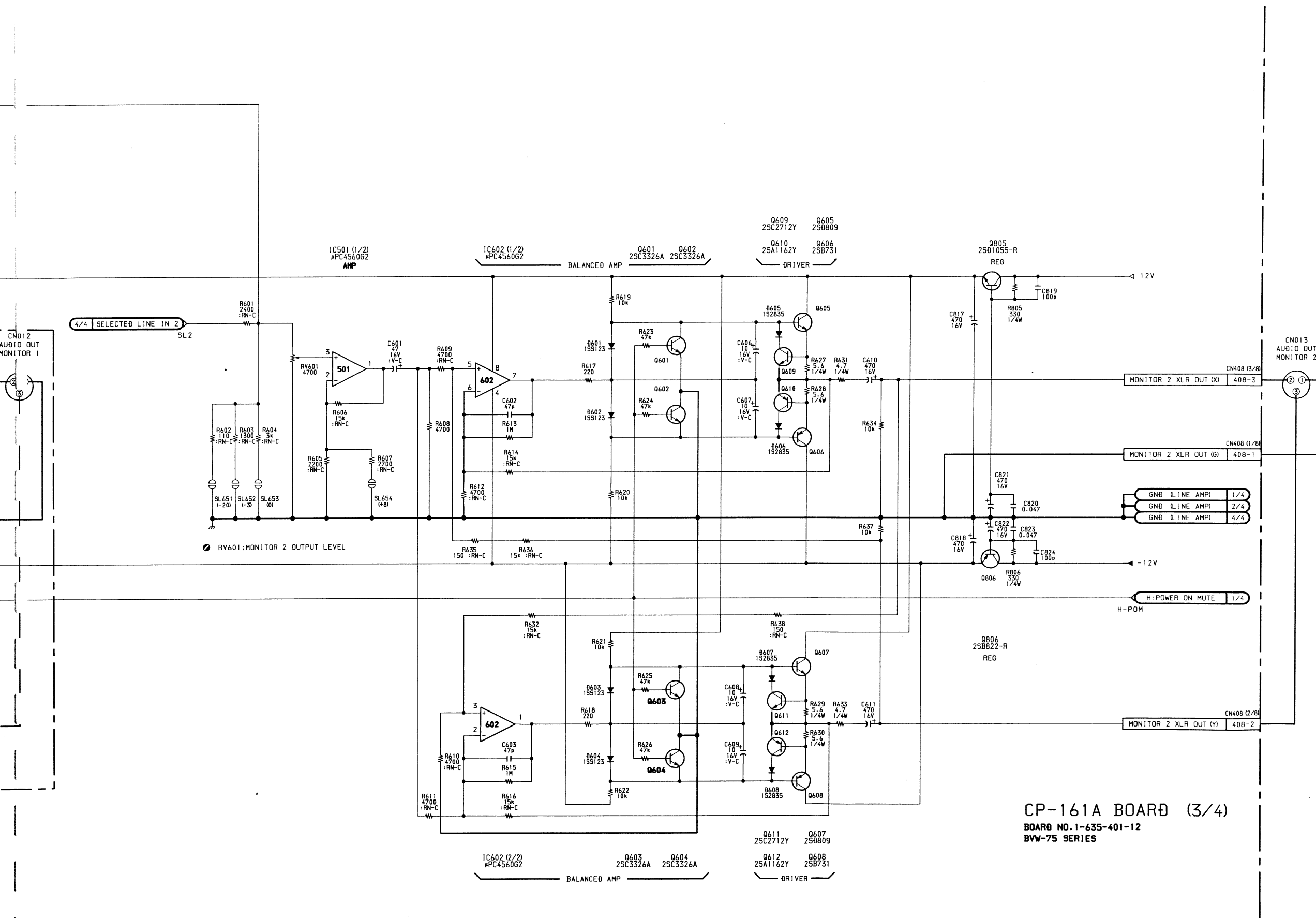
S/N 12855 and higher



16-177 (b)

16-178 (b)





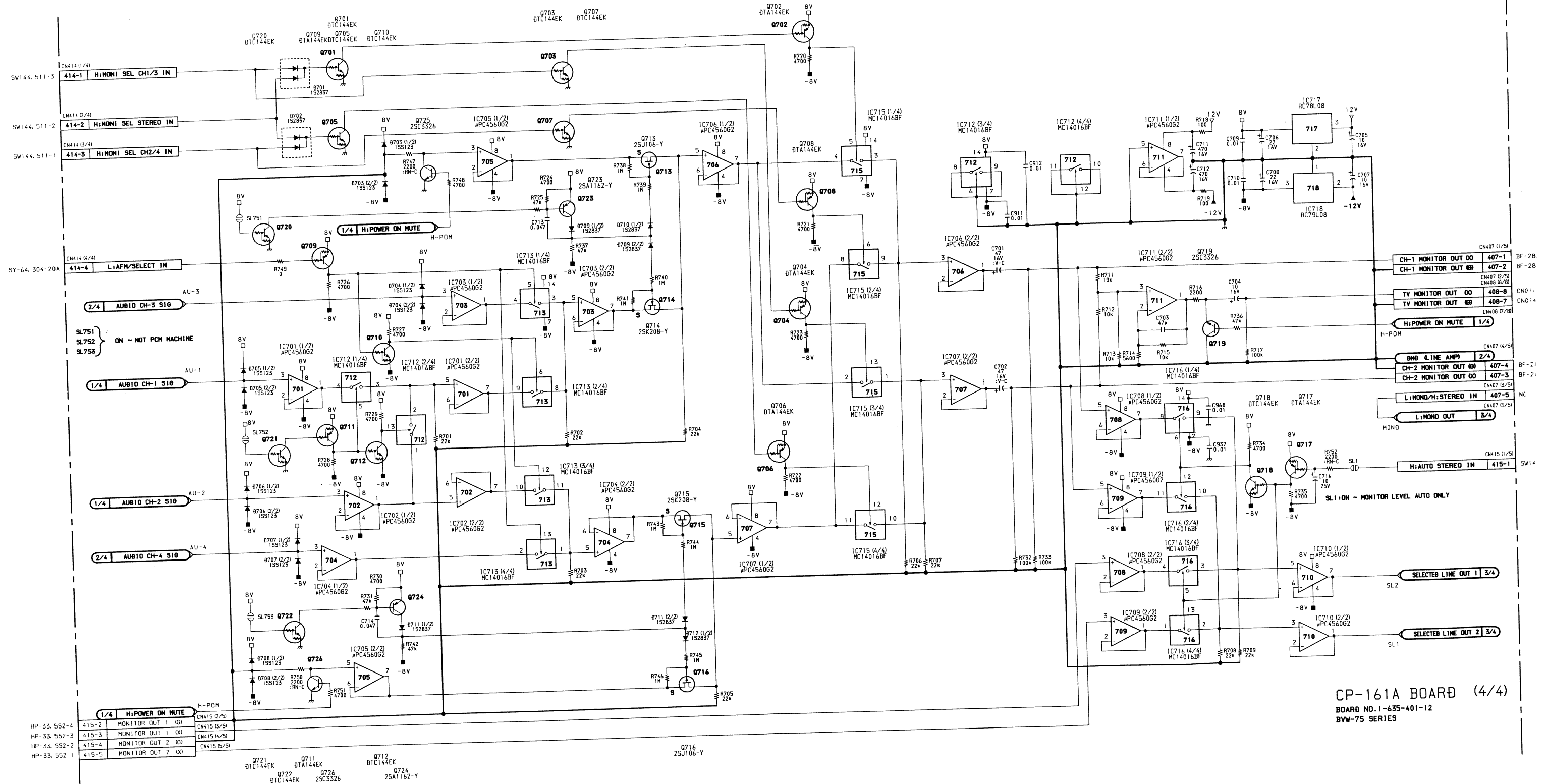
CP-161A BOARD (3/4)  
BOARD NO. 1-635-401-12  
BVW-75 SERIES

16-179 (b)

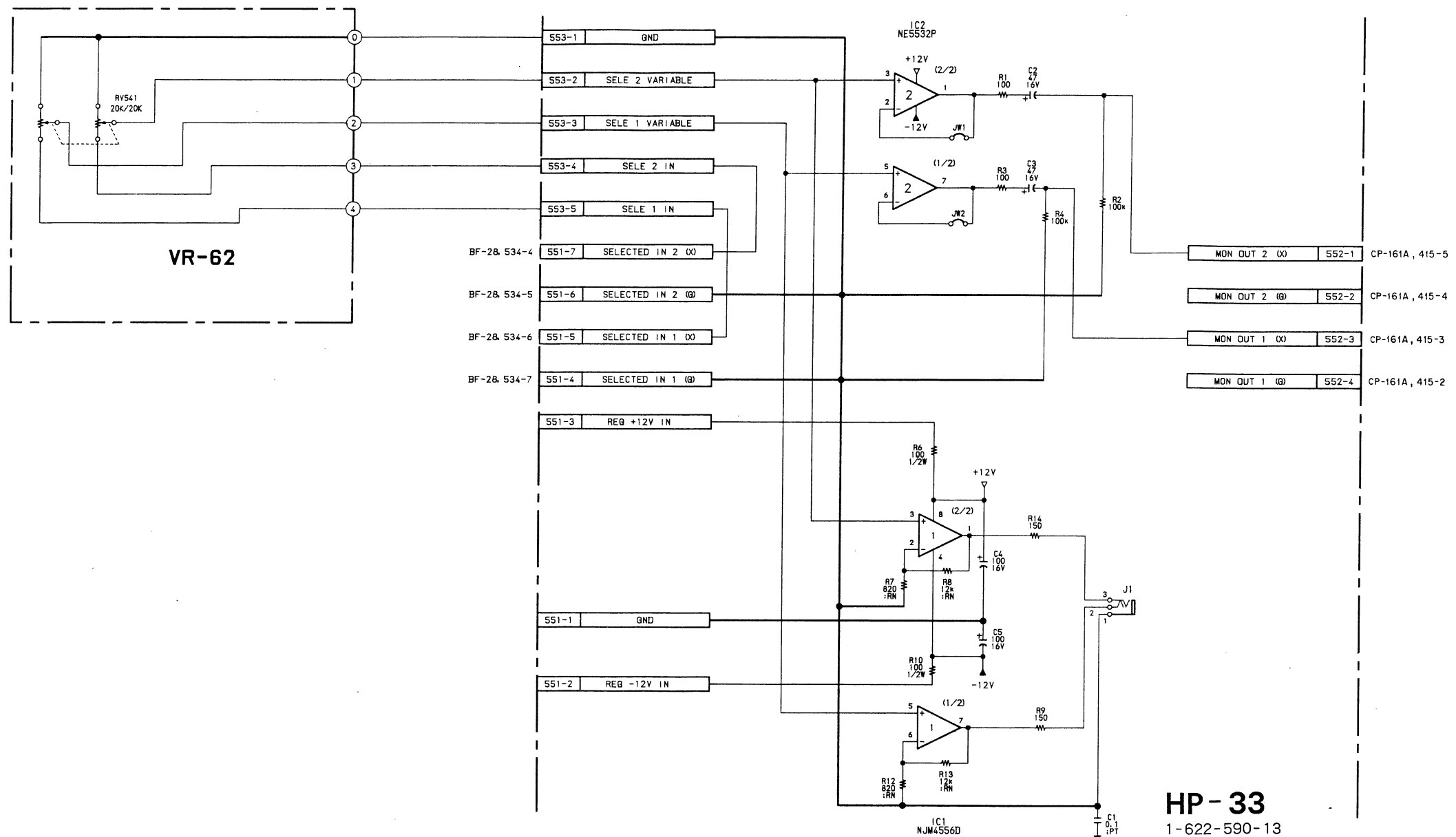
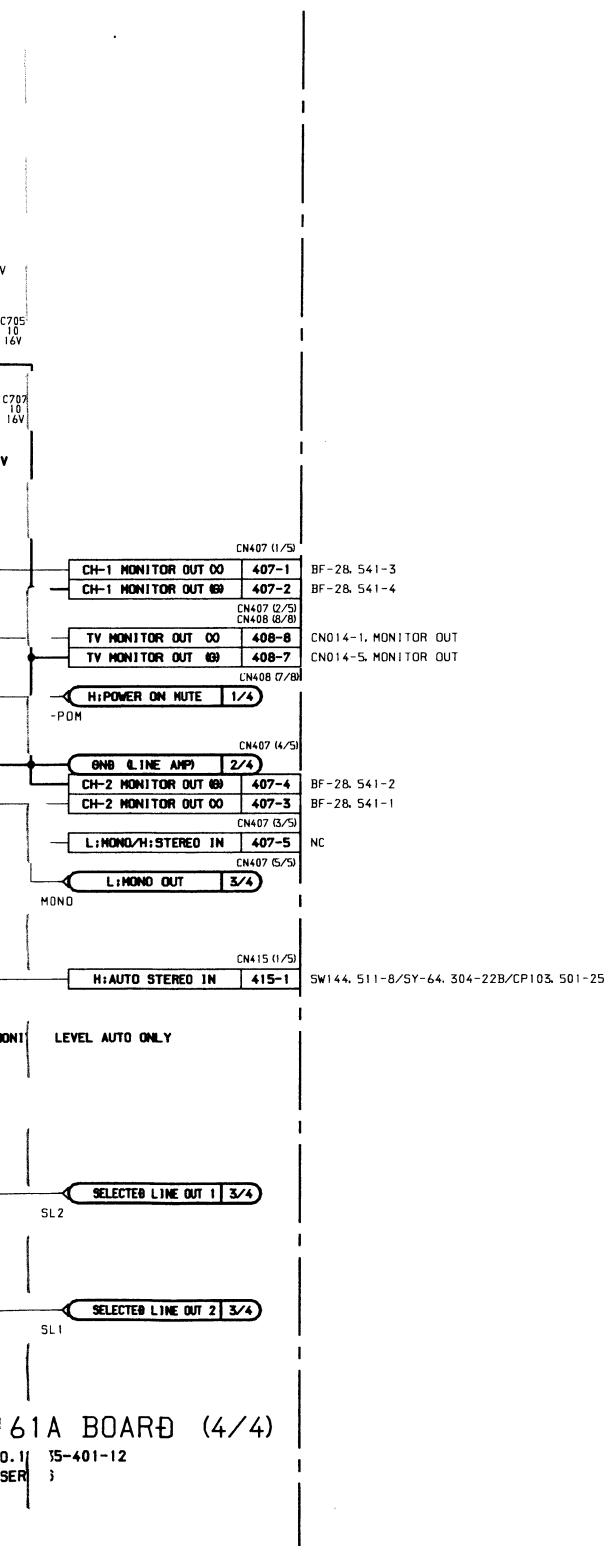
16-180 (b)

P-161A (4/4); AUDIO OUTPUT BALANCED AMPLIFIER/DRIVER  
 P-33; HEADPHONES AMPLIFIER/JACK  
 R-62; HEADPHONES LEVEL VOLUME

S/N 12855 and higher



CP-161A BOARD (4/4)  
 BOARD NO. 1-635-401-12  
 BYW-75 SERIES

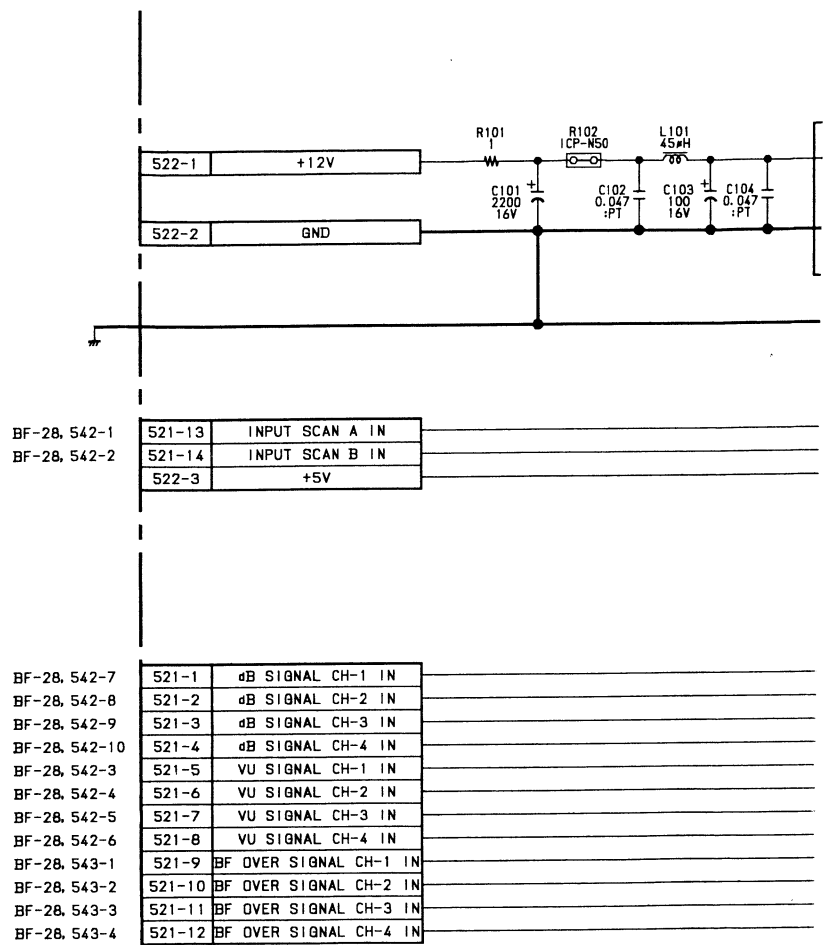
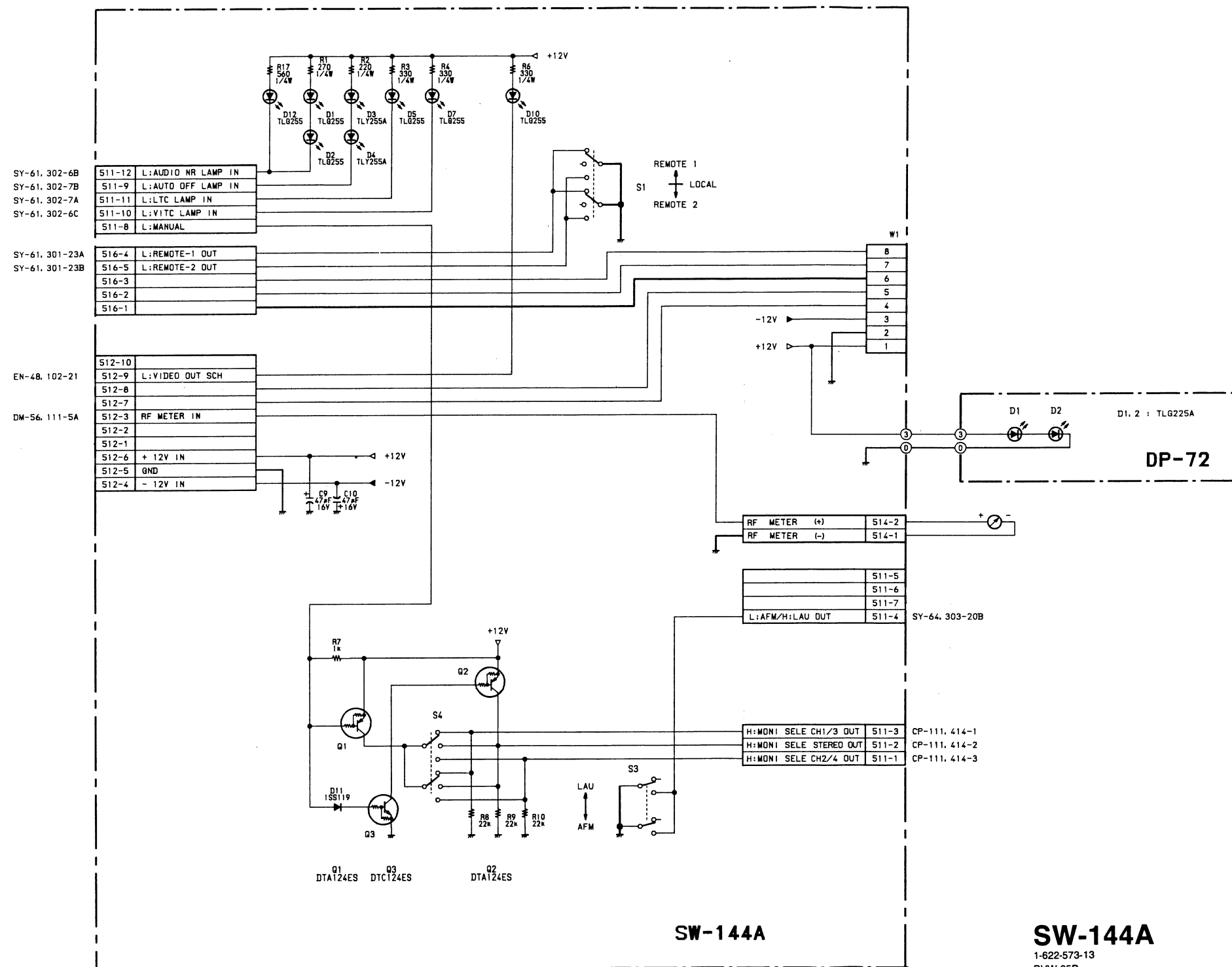


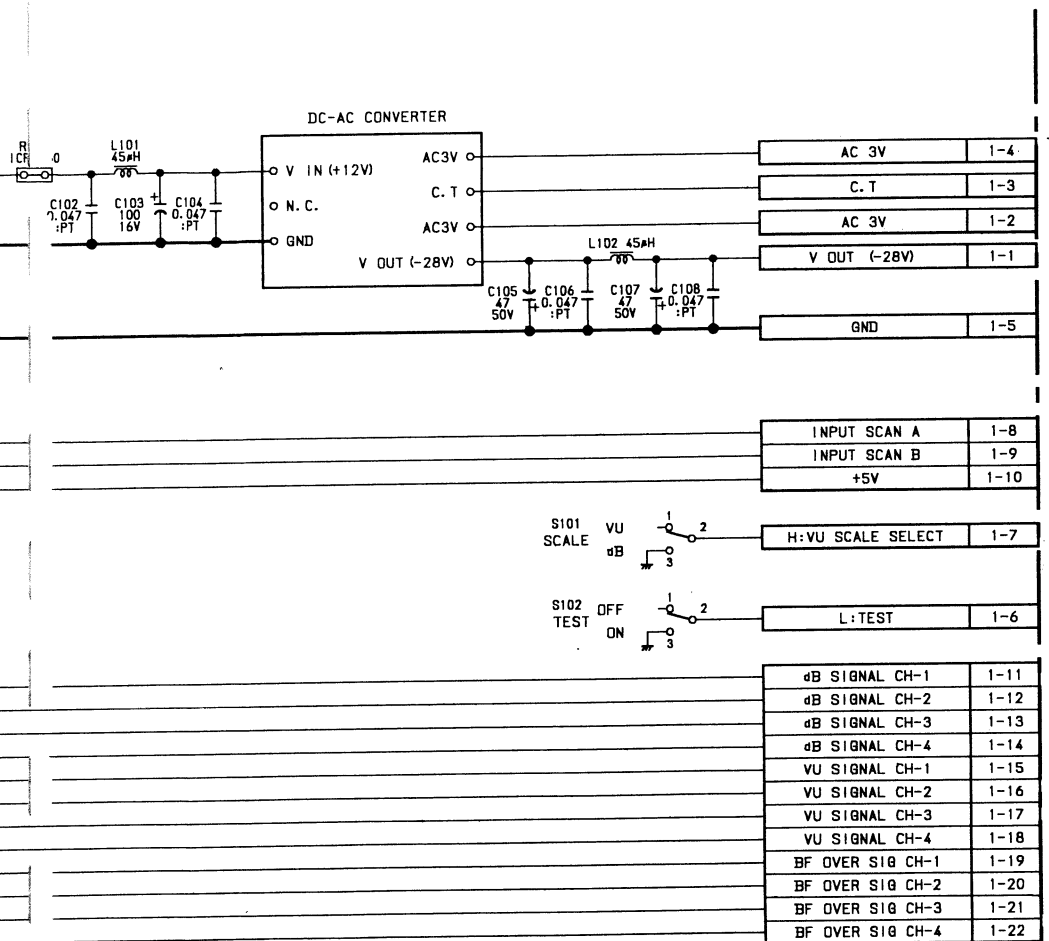
**HP-33**  
1-622-590-13  
BVW-75 SERIES

SW-144A; SELECT SWITCH/DISPLAY  
DP-72; RF METER LED  
DP-74; AUDIO LEVEL METER CONTROLLER/DRIVER  
DP-73; DC-AC/DC CONVERTER

## NOTE

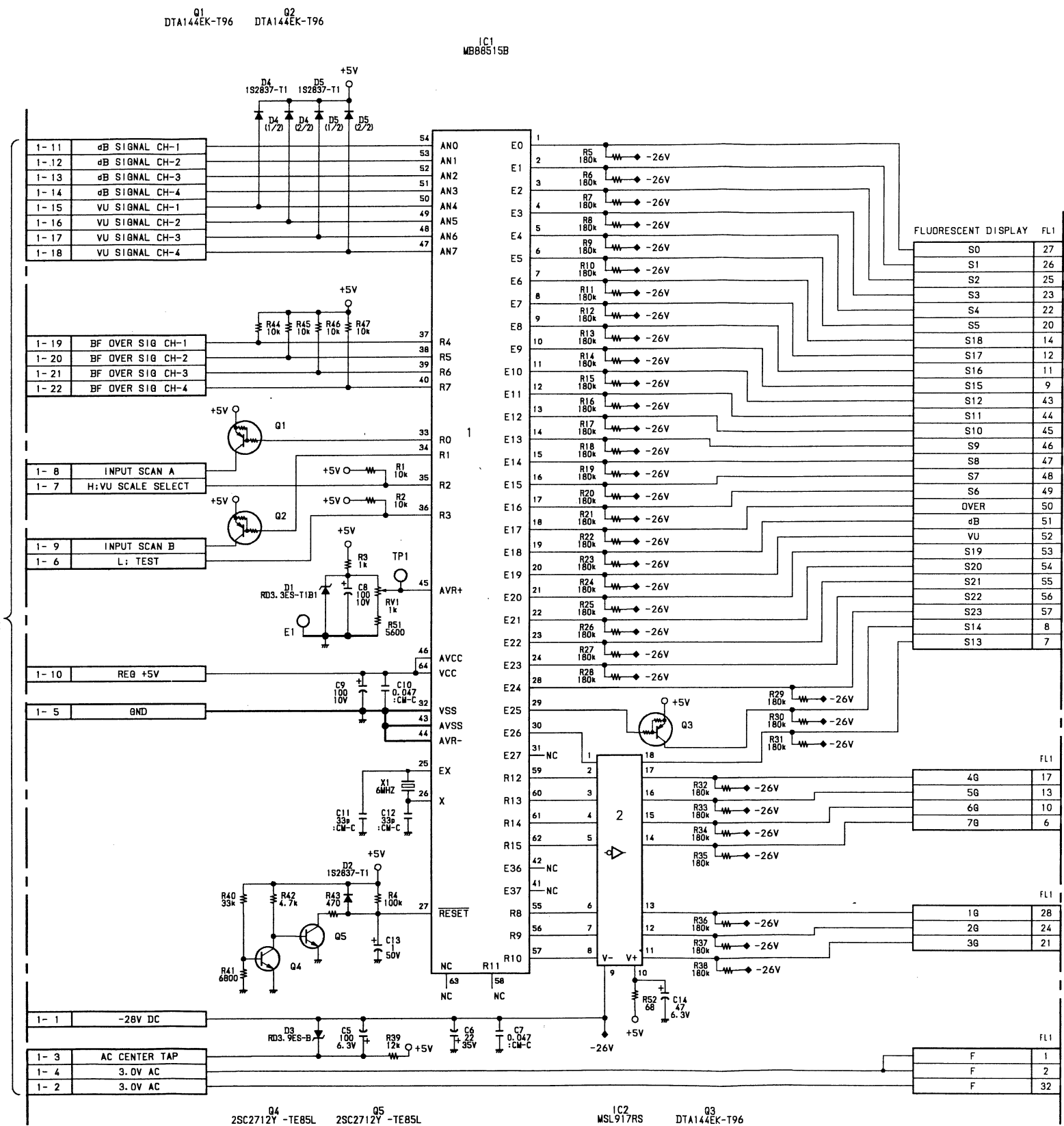
MARK	CHANGE INFORMATION	SERIAL NO.
*1	L103 47 $\mu$ H ADDED	S/N 10191 ~



NO.  
1

**DP-73**  
1-622-575-12  
BVW-65P

16-195



**DP-74**  
1-622-576-12  
BVW-65P

16-196

J

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M

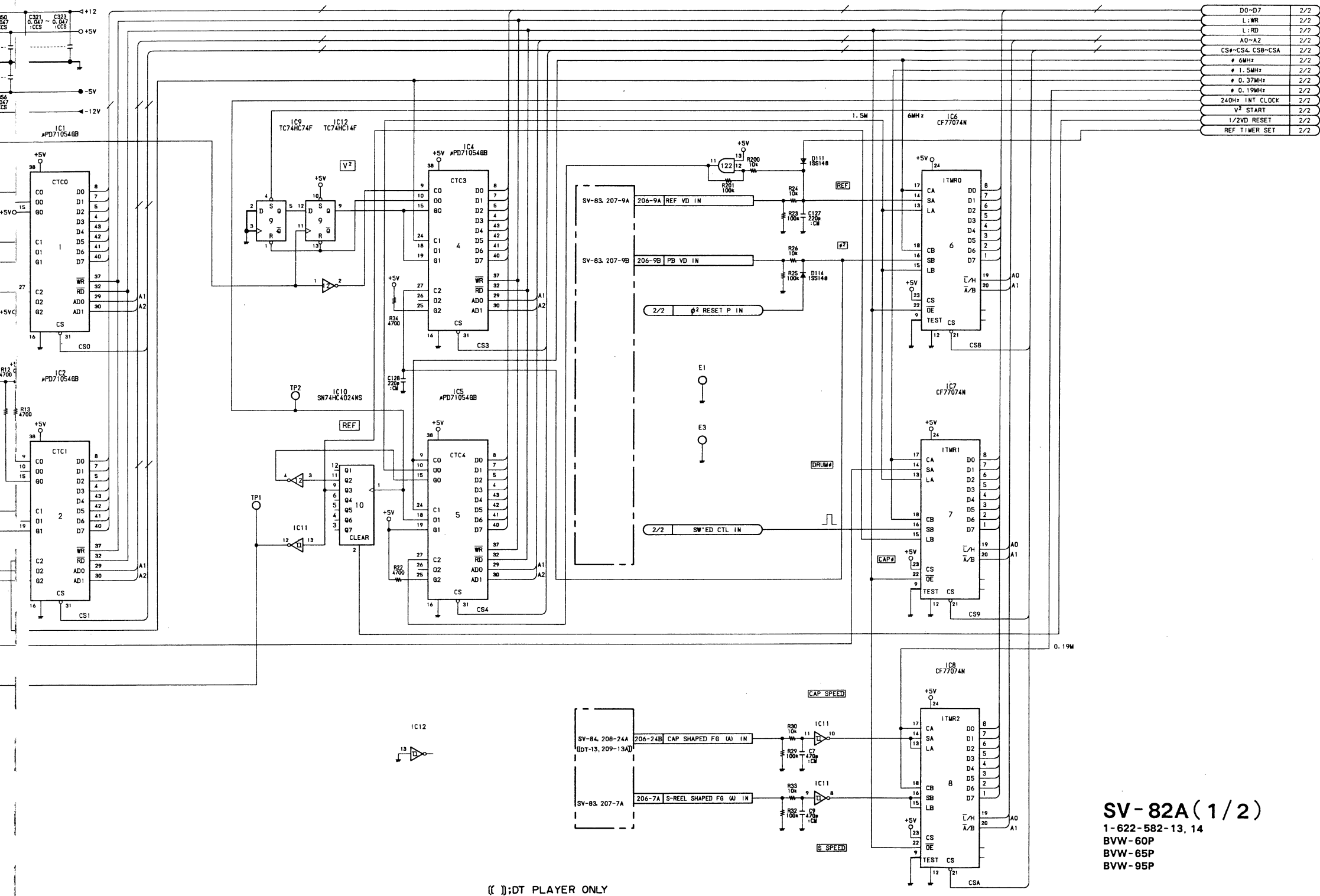
N

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## 5





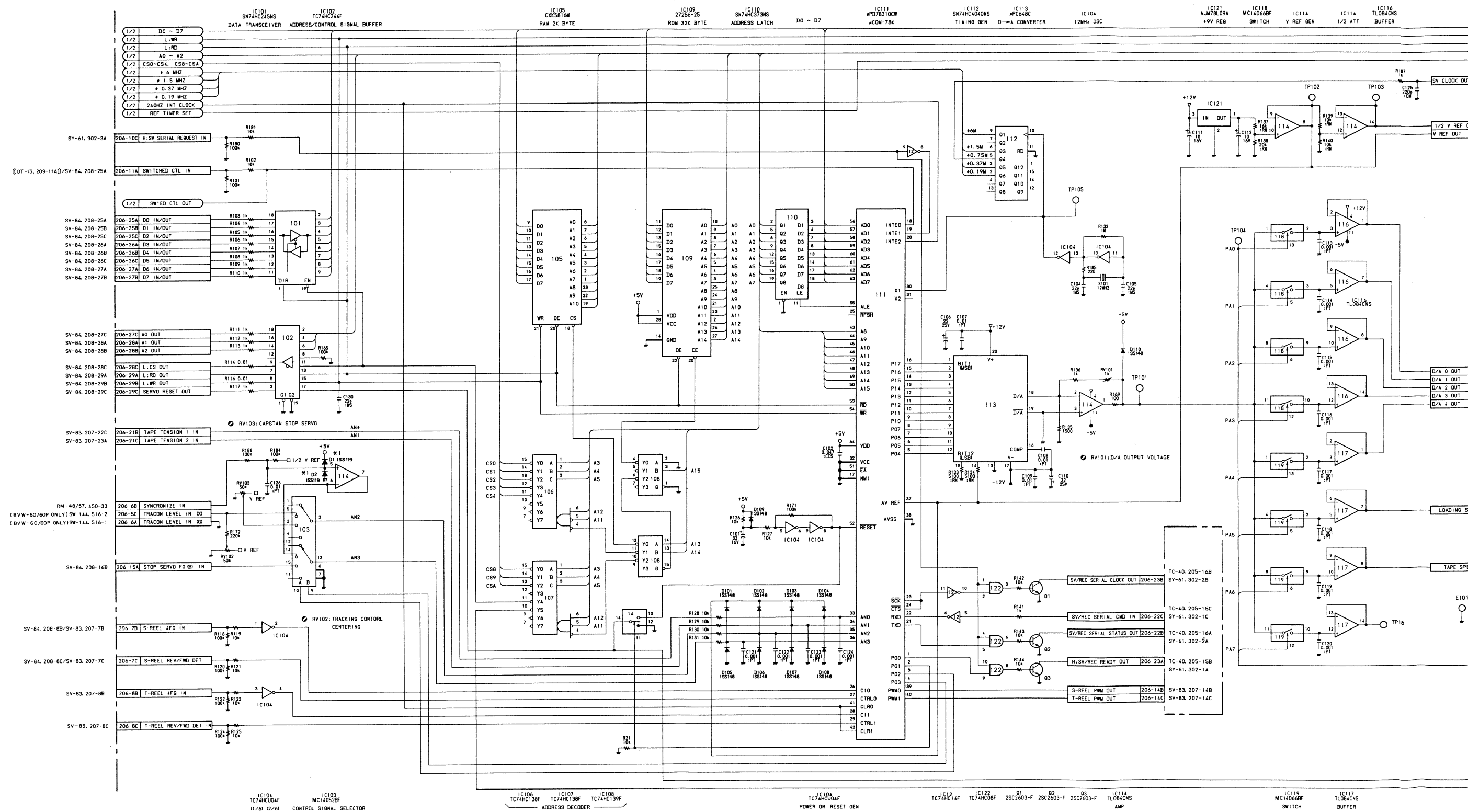
SV-82A(1/2)

1-622-582-13, 14  
BVW-60P  
BVW-65P  
BVW-95P

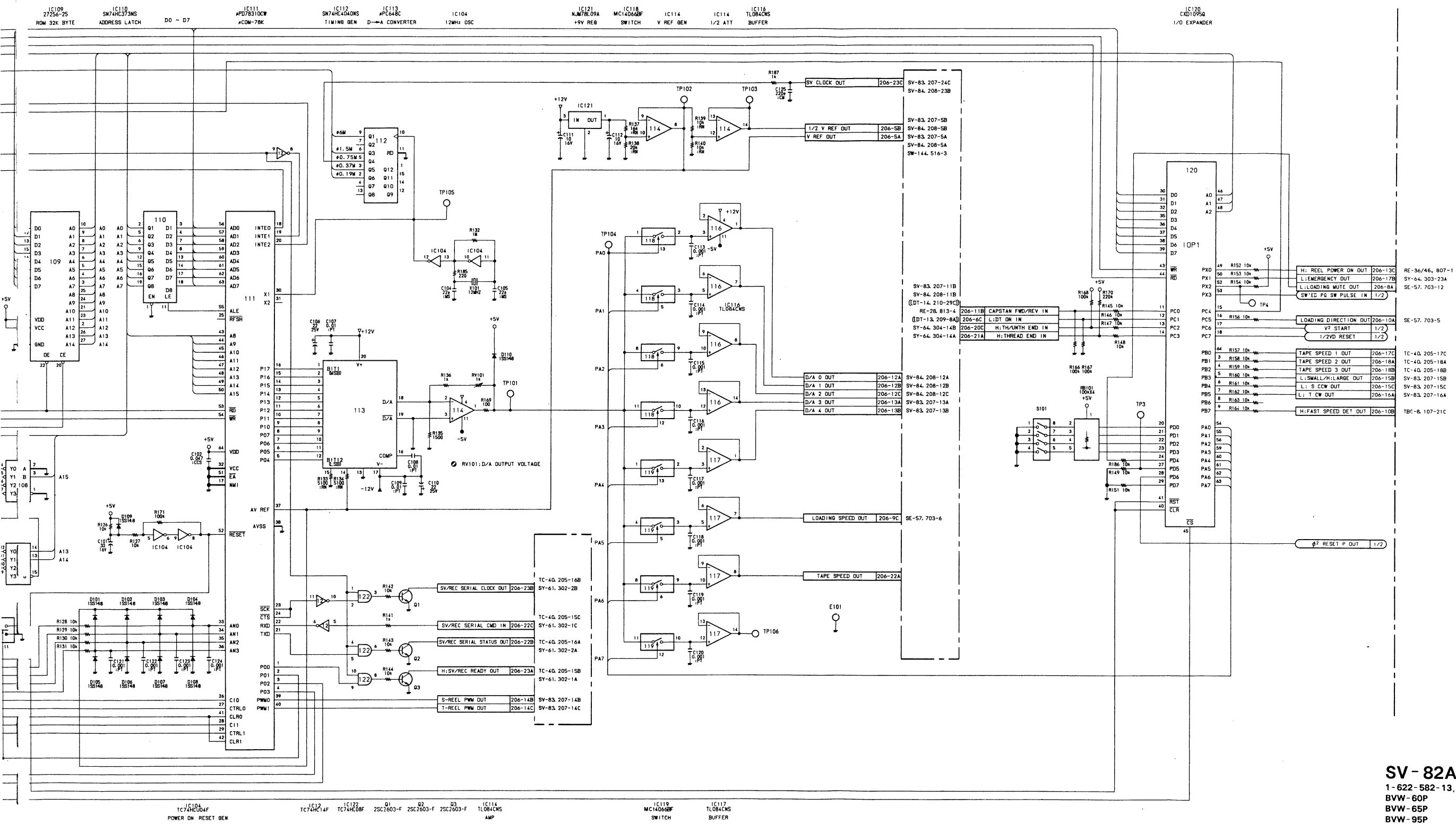
## SV-82A (2/2); MICROCOMPUTER SERVO

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	D1 1SS119 ADDED D2 1SS119 ADDED	S/N 10192 ~







SV-82A (2/2)

1-622-582-13, 14

BVW-60P

BVW-65P

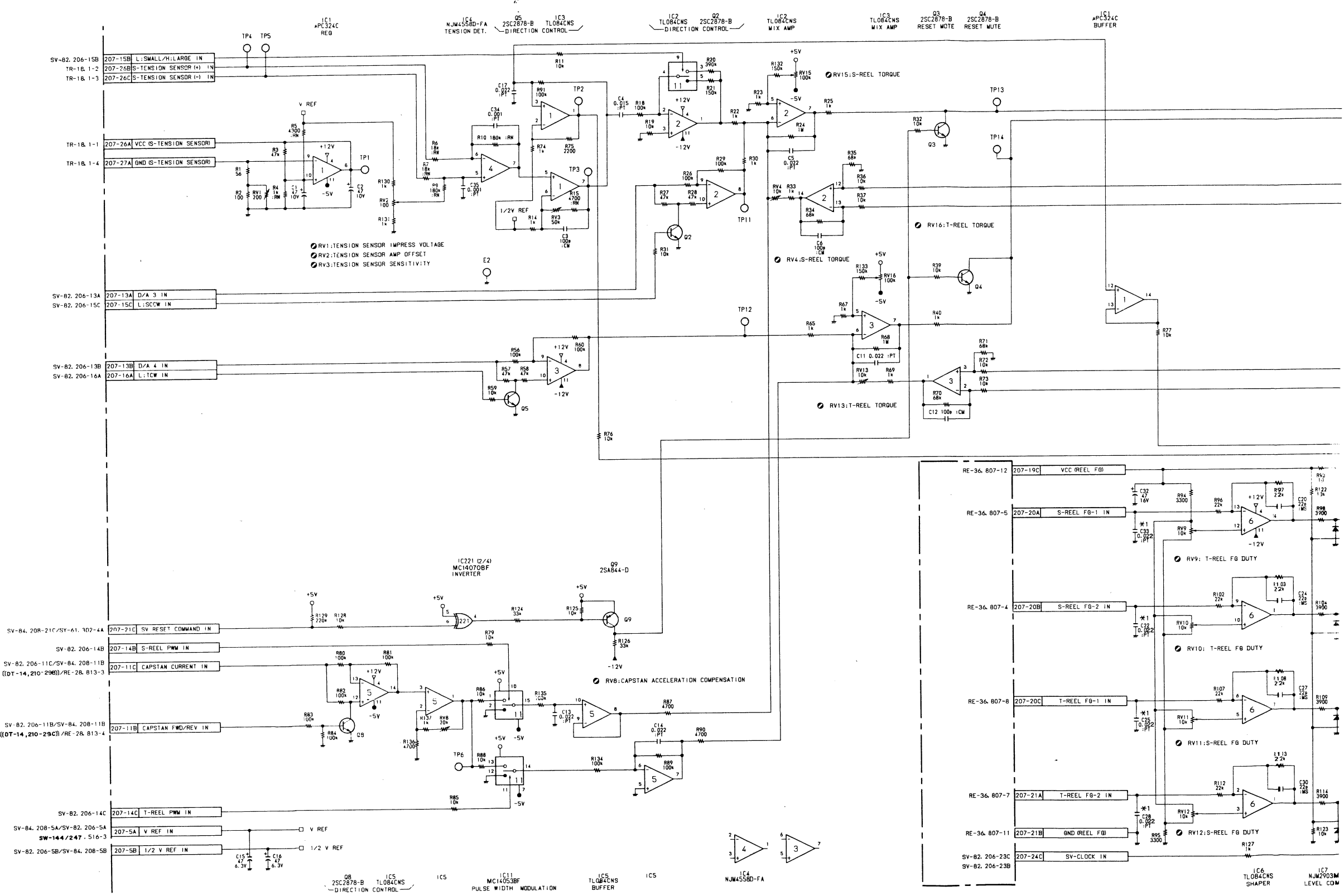
BVW-95P

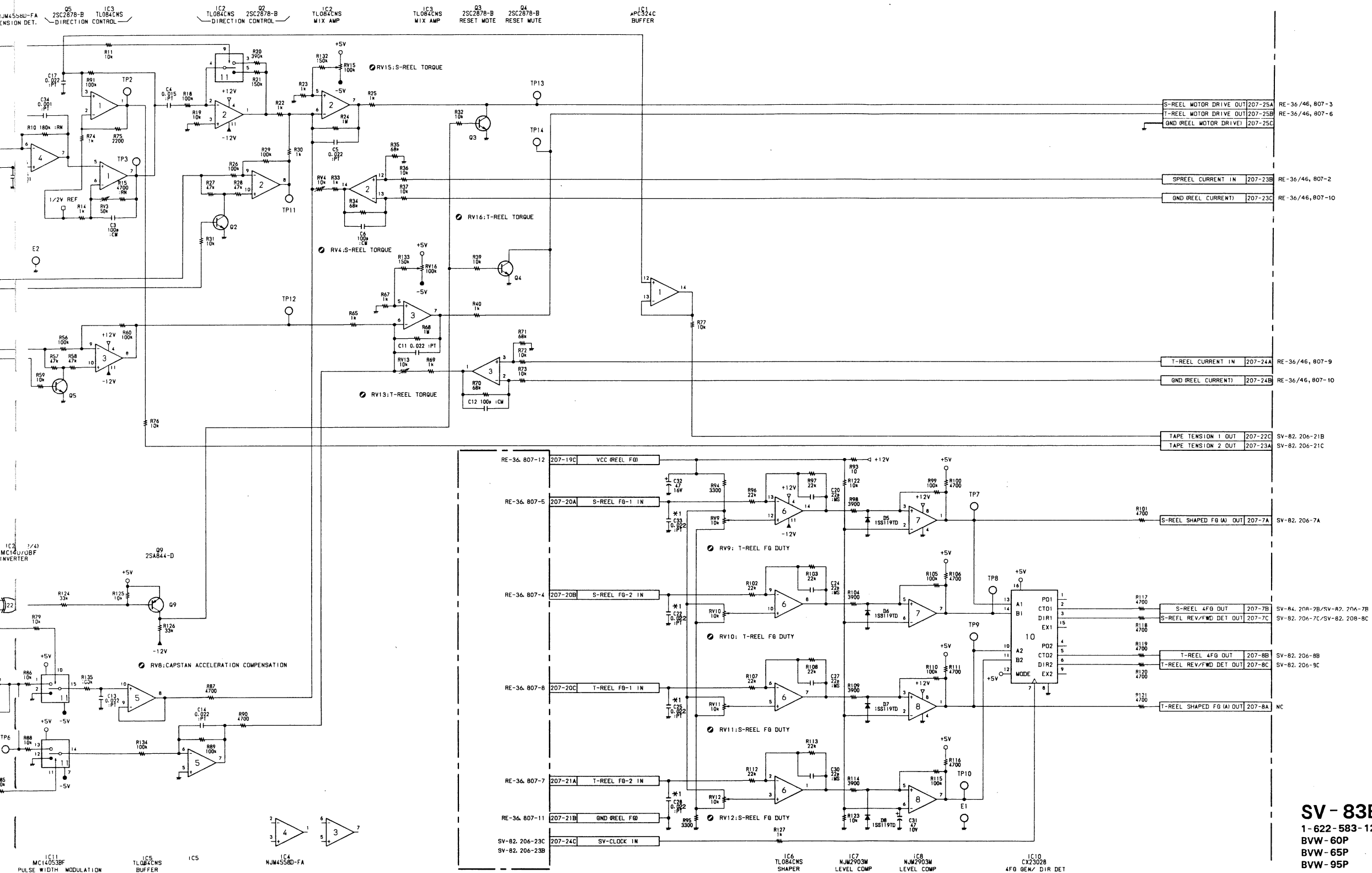
[ ] ; DT PLAYER ONLY

SV-83B (1/2) ; REEL SERVO

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C22 0.033 → 0.022 C25 0.033 → 0.022 C28 0.033 → 0.022 C33 0.033 → 0.022	S/N 11260 ~



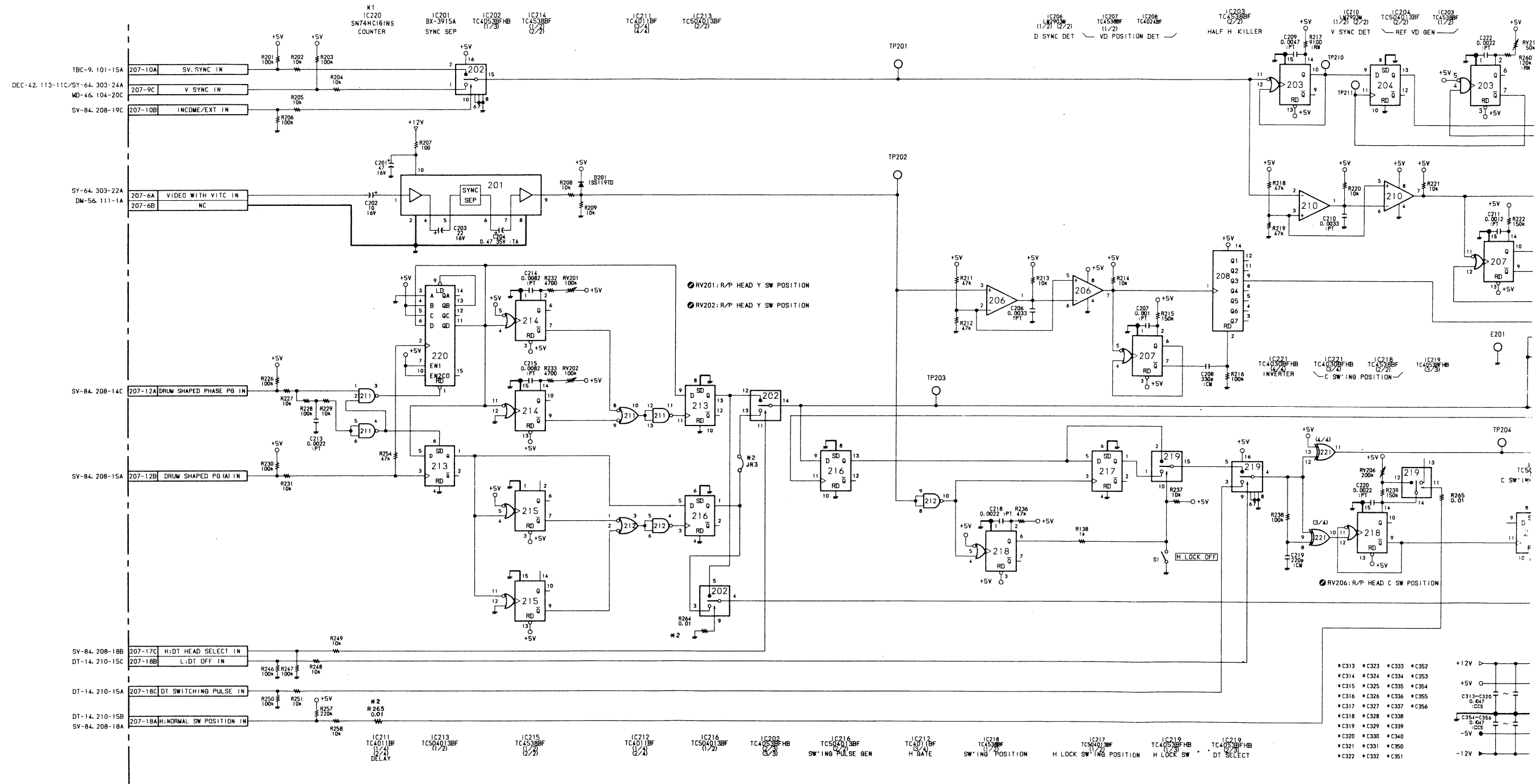


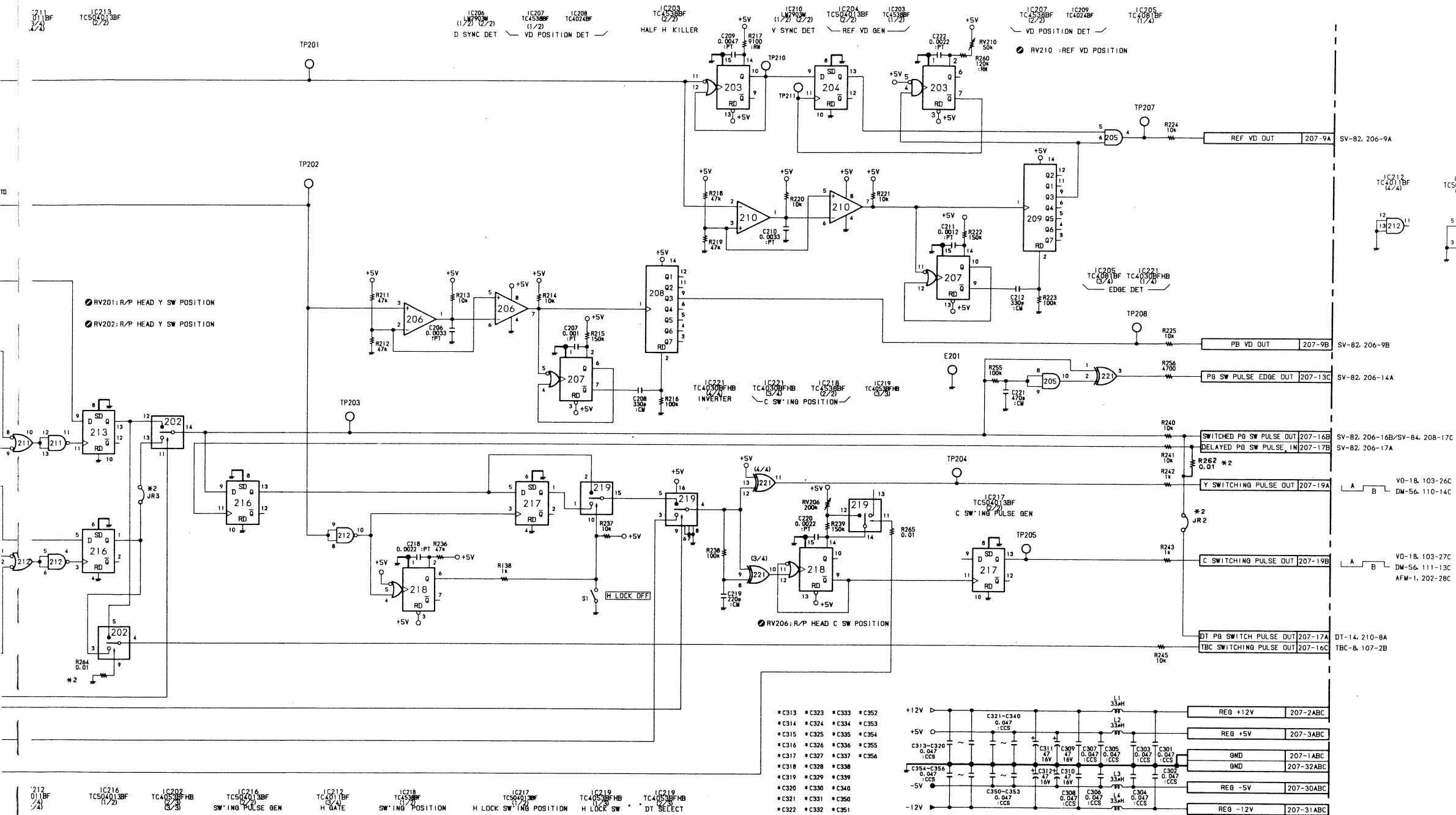
SV-83B(1/2)  
1-622-583-12, 13  
BVW-60P  
BVW-65P  
BVW-95P

## SV-83B (2/2); SW PULSE/VD GENERATOR

## NOTE

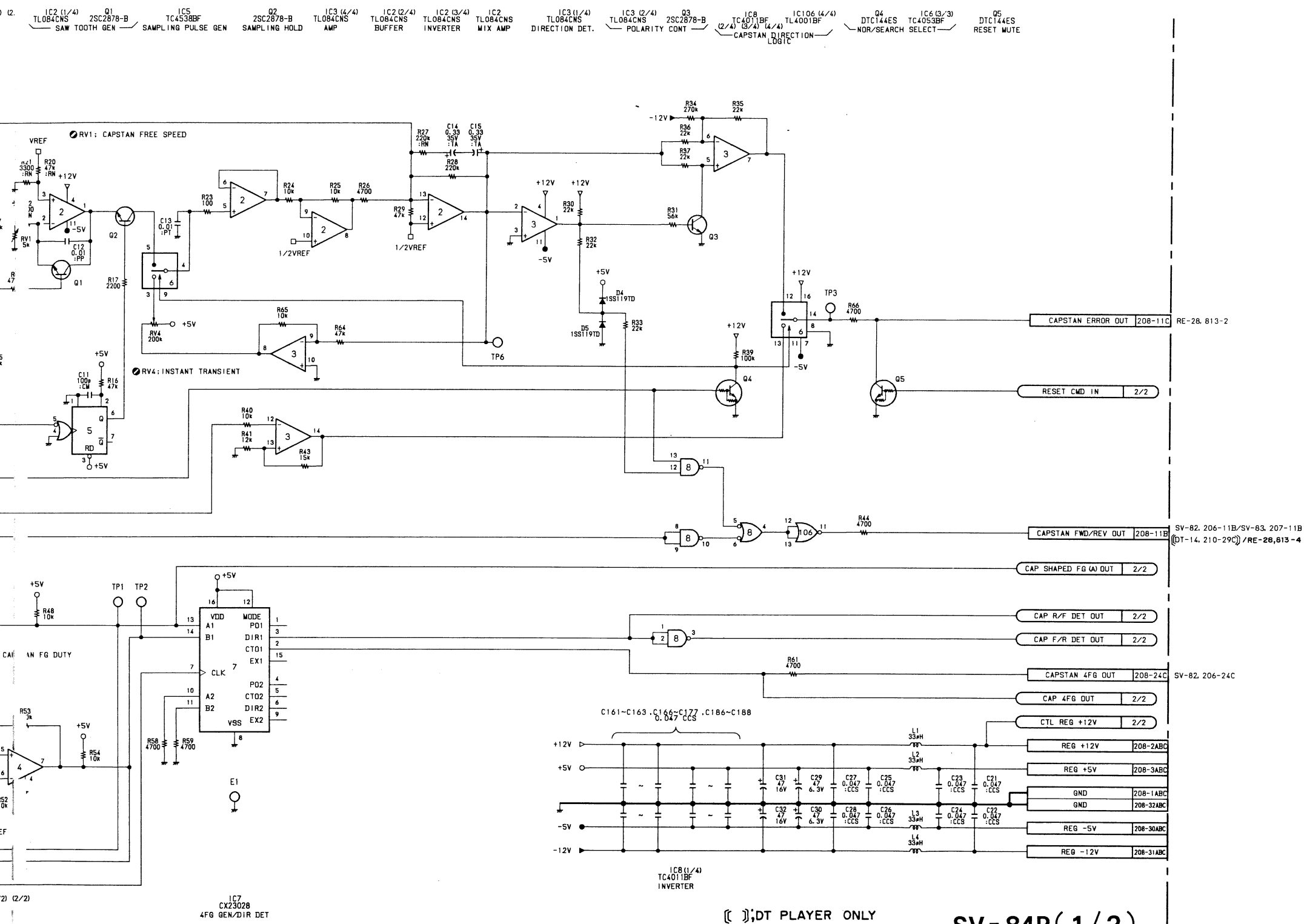
MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC220 TC74HC160F → SN74HC161NS DELETED JR2, JR3 ADDED R262, R264, R265	S/N 11852 ~





SV-83B(2/2)

1-622-583-12, 13  
BVW-60P  
BVW-65P  
BVW-95P



# SV-84P(1/2)

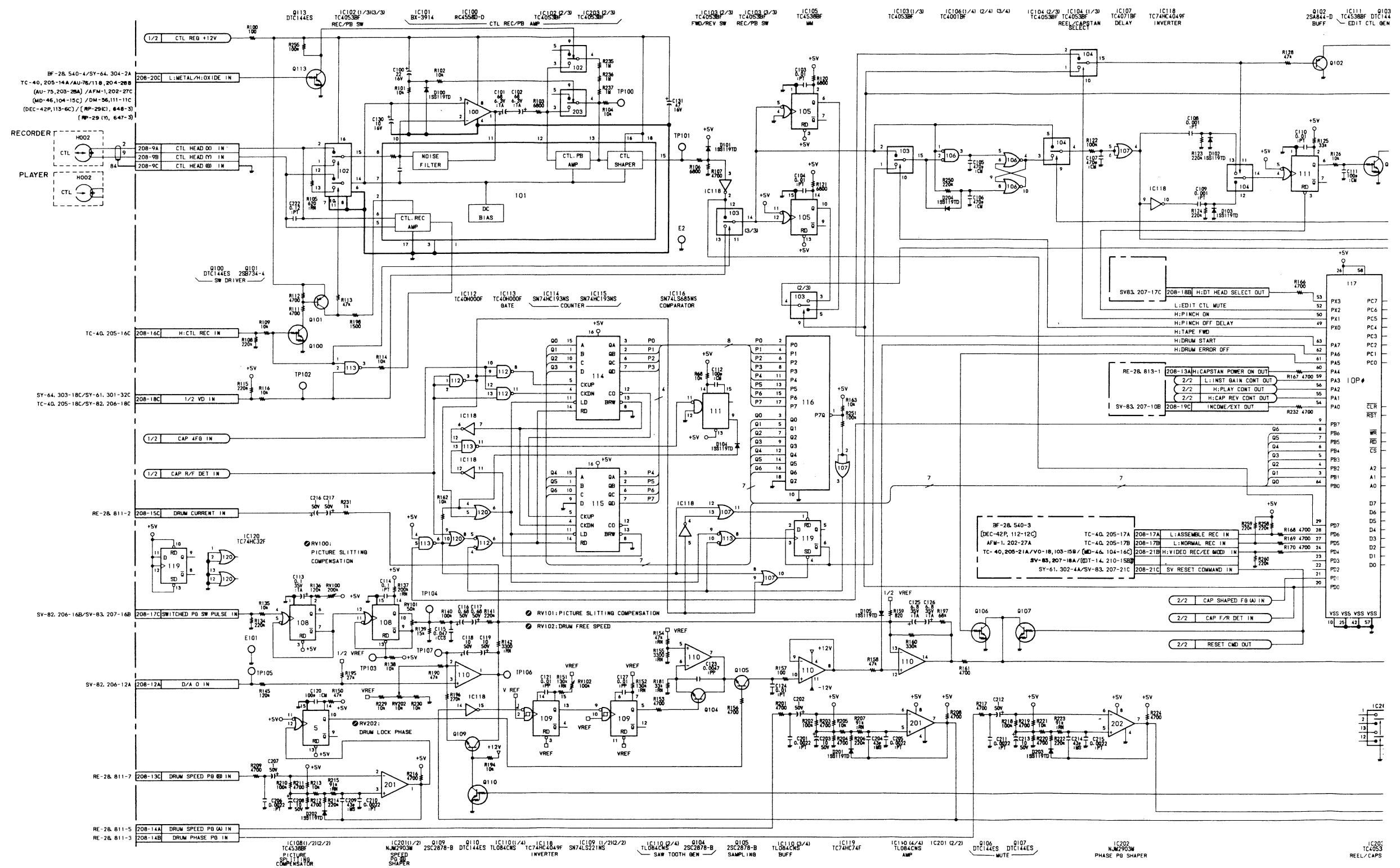
1-622-584-13

BVW-60P BVW-70P

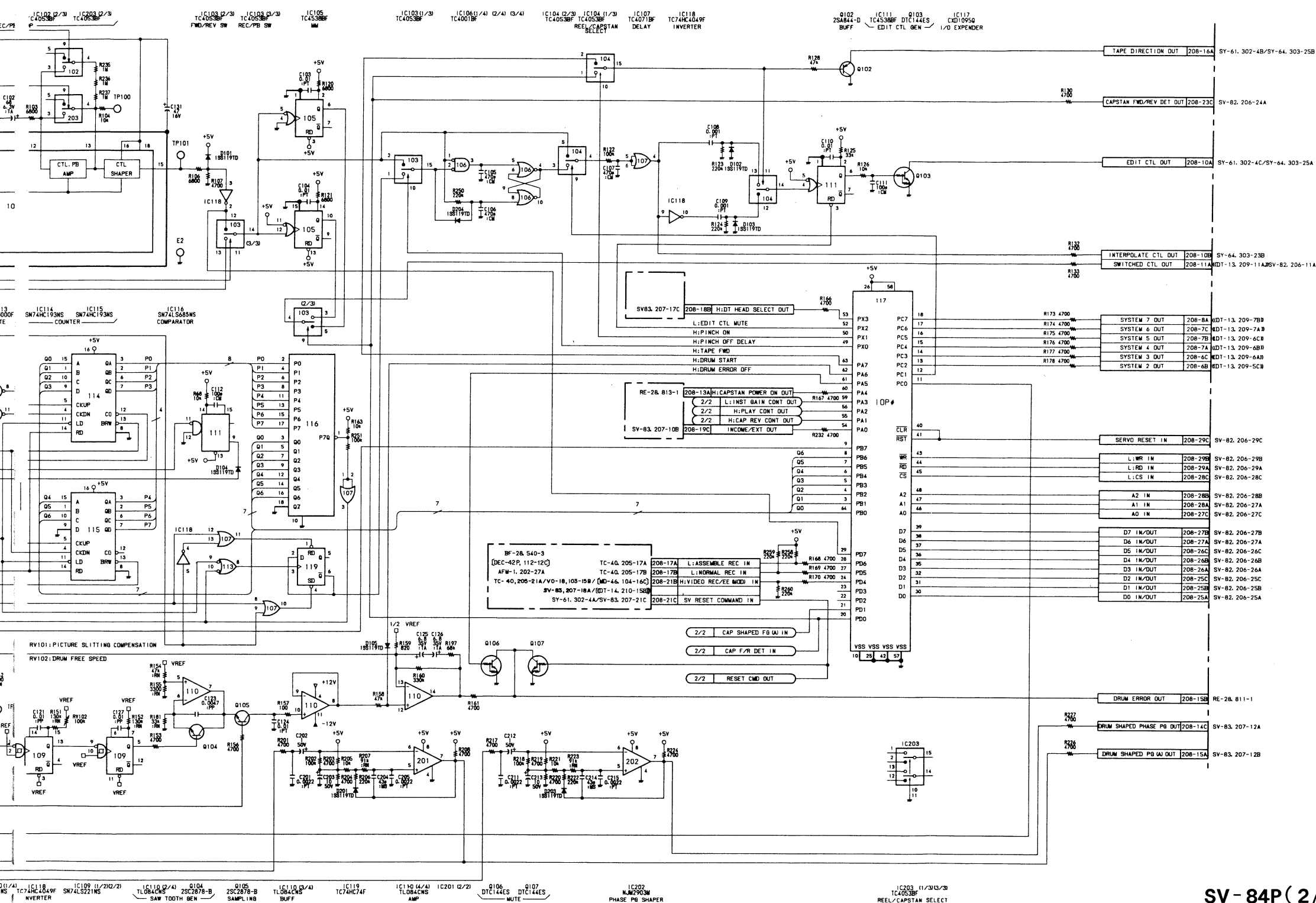
BVW-65P BVW-75P

BVW-95P BVW-96P

(X) LIST PLAYER ONLY  
[ ] RECORDER ONLY



1



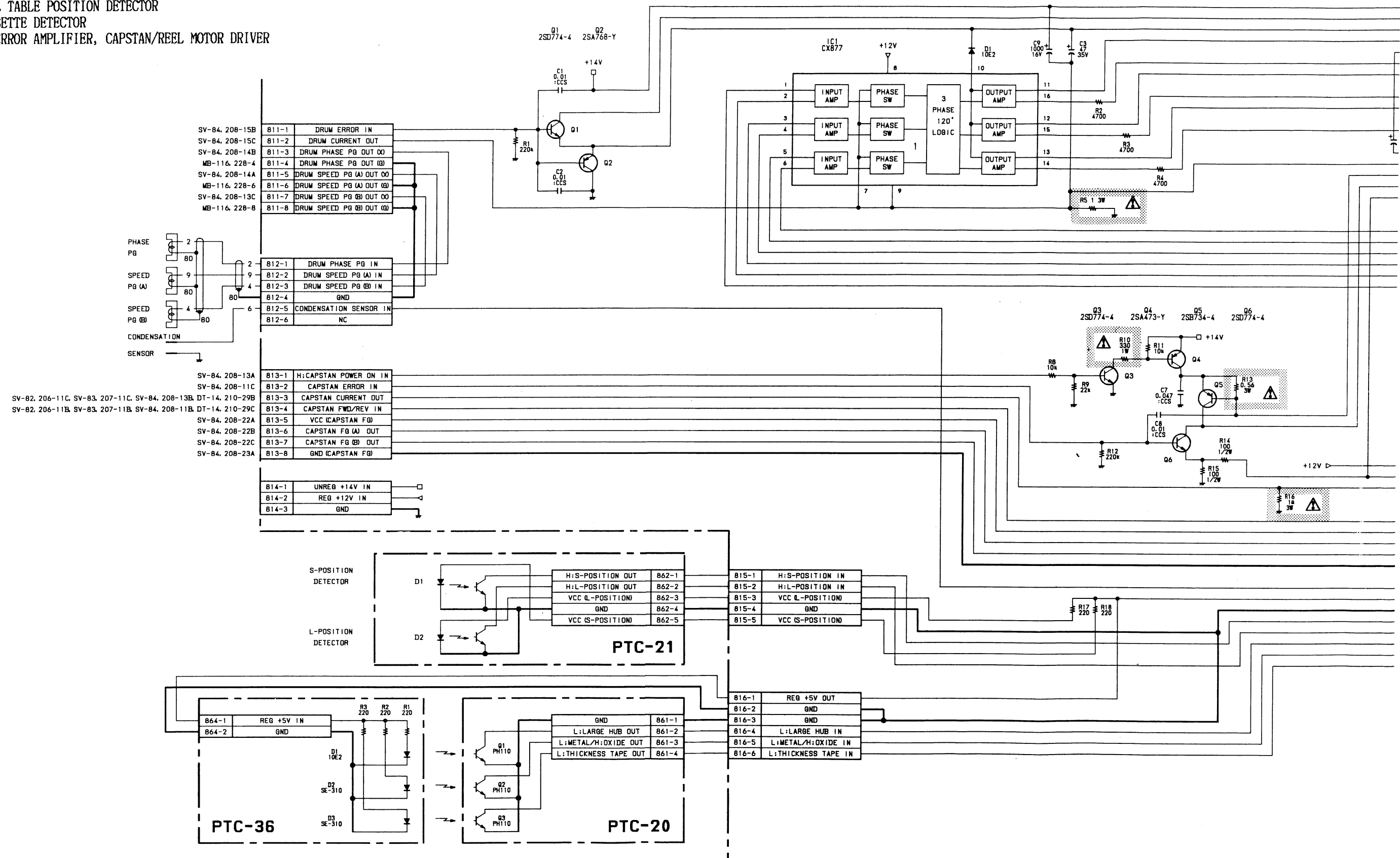
☐ LISTEN ONLY  
☐ RECORDER ONLY

SV-84P(2/2)

1-622-584-13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P



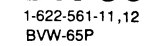
RE-28; DRUM/CAPSTAN MOTOR DRIVER  
 PTC-20; CASSETTE DETECTOR  
 PTC-21; REEL TABLE POSITION DETECTOR  
 PTC-36; CASSETTE DETECTOR  
 DR-56; DRUM ERROR AMPLIFIER, CAPSTAN/REEL MOTOR DRIVER





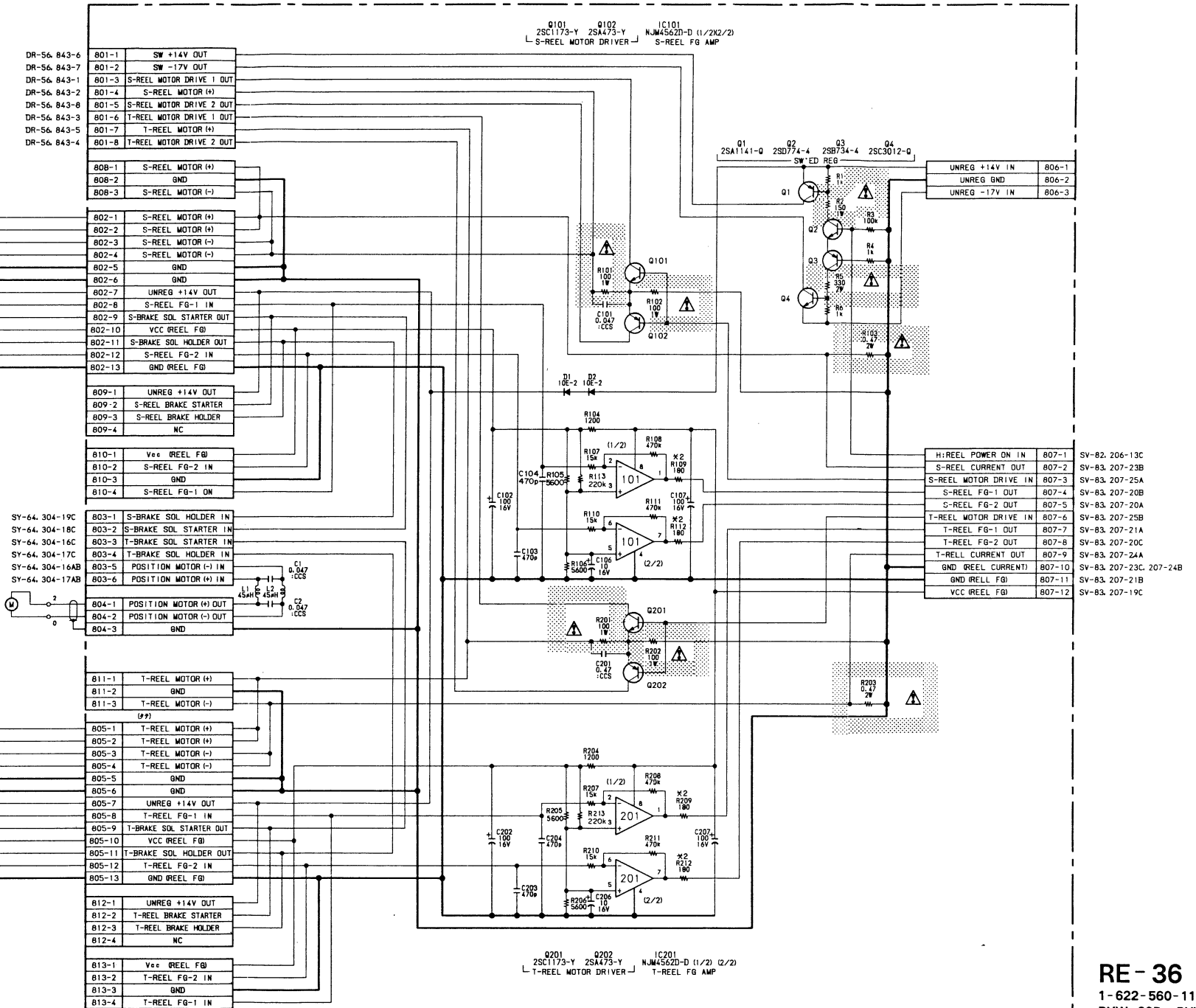
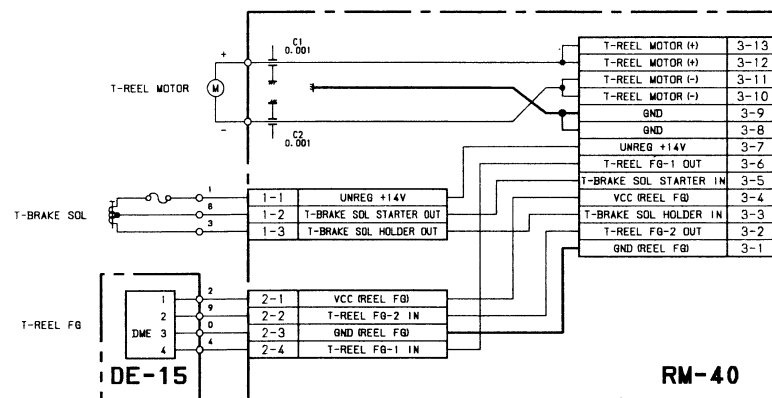
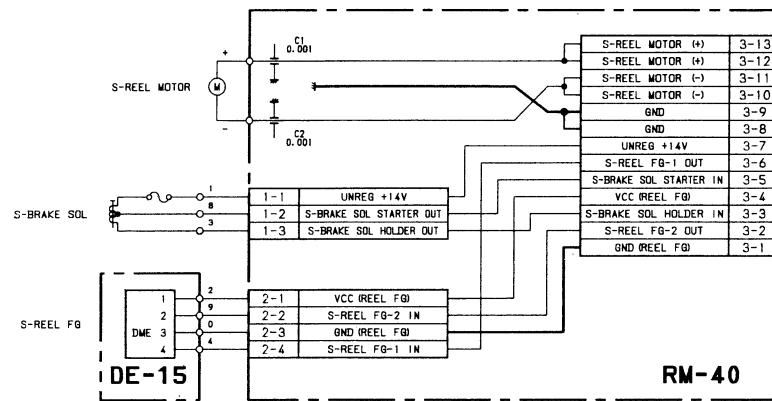
1-622-559-11, 12  
BVW-65P

The shaded and -marked components are critical to safety.  
Replace only with same components as specified.




RE-36 ; REEL MOTOR DRIVER  
RM-40 ; REEL MOTOR  
DE-15 ; REEL MOTOR FG  
SE-57 ; THREADING MOTOR CONTROL  
PTC-31 ; THREADING MOTOR FG

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R105 5100 → 5600 R205 5100 → 5600 R113 220k ADDED R213 220k ADDED	S/N 10417 ~
*2	R109 100 → 180 R112 100 → 180 R209 100 → 180 R212 100 → 180	S/N 11260 ~
*3	C3 0.0047 → 0.0056 R11 100k → 91k	S/N 11852 ~

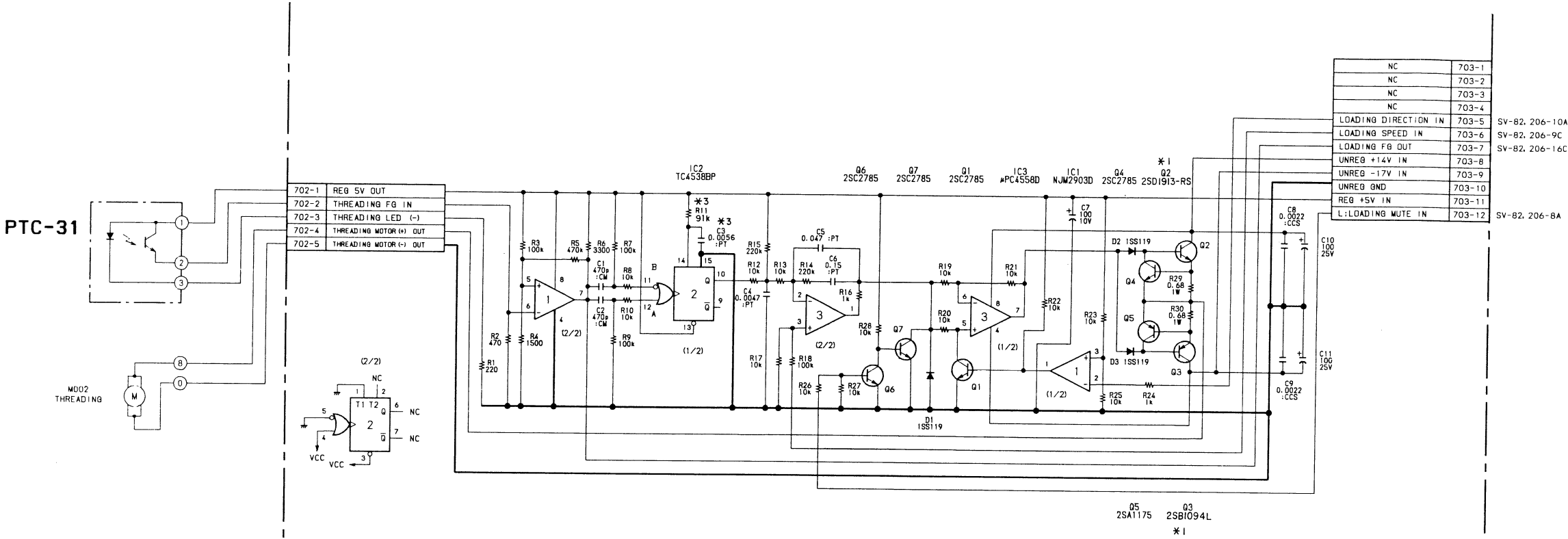


**RE - 36**  
1-622-560-11  
BVW-60P BVW-70P  
BVW-65P BVW-75P

The shaded and -marked components are critical to safety.  
Replace only with same components as specified.

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	Q2 2SC1173 → 2SD1913-RS Q3 2SA473 → 2SB1094L	S/N 12302 ~



SE-57

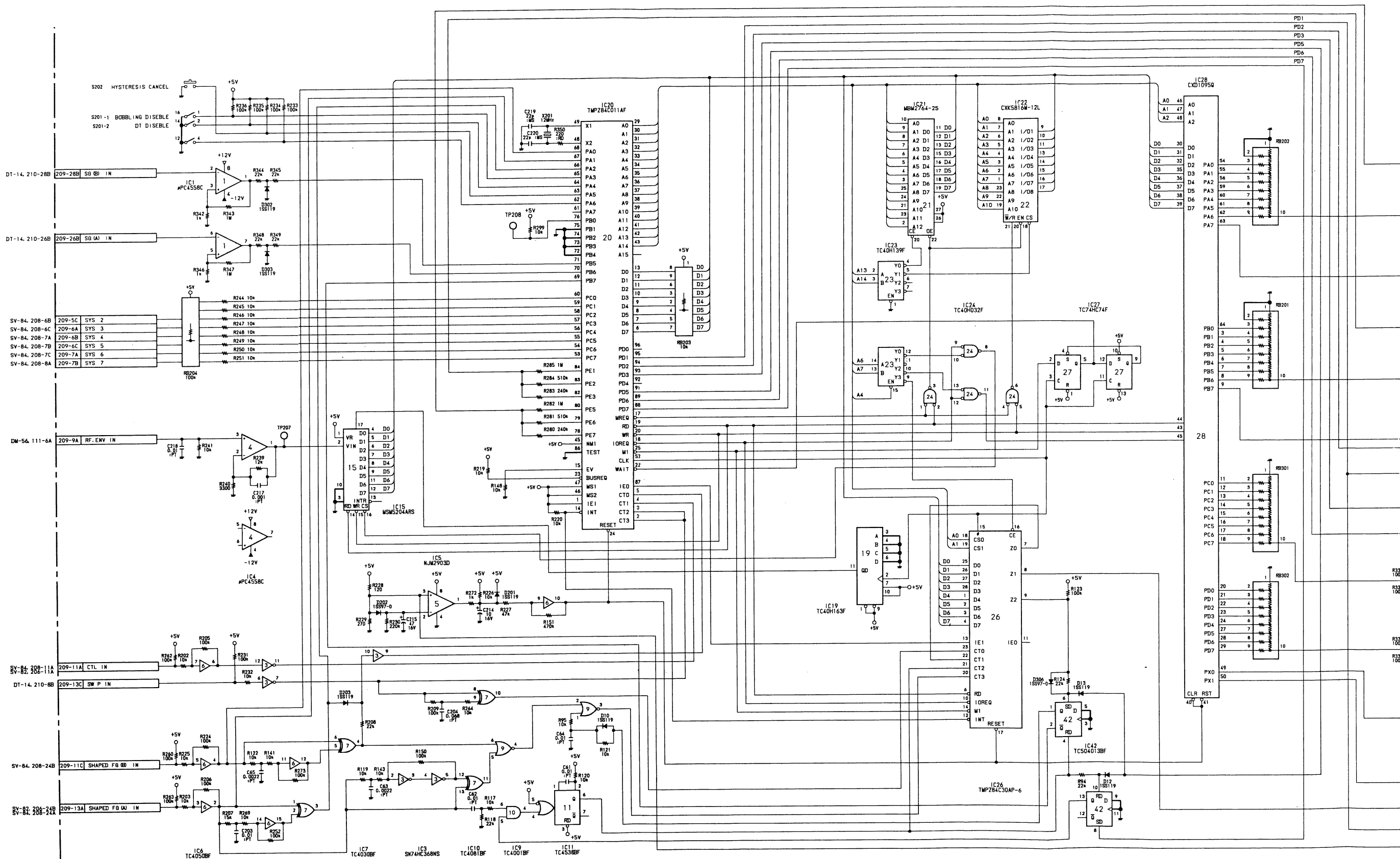
1-622-562-12

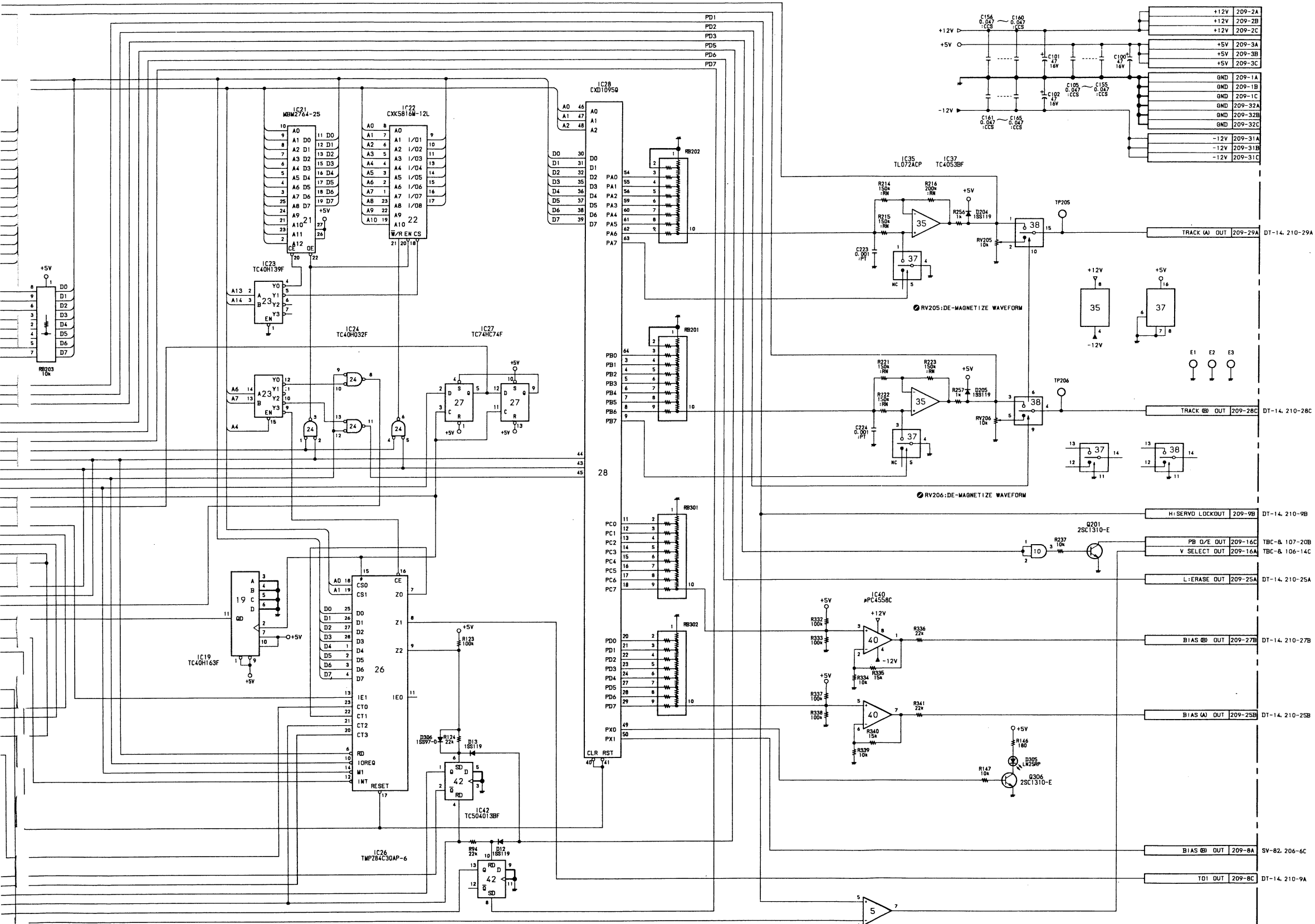
BVW-60P BVW-70P

BVW-65P BVW-75P

BVW-95P BVW-96P

## DT-13; DYNAMIC TRACKING





1

## 2

## 3

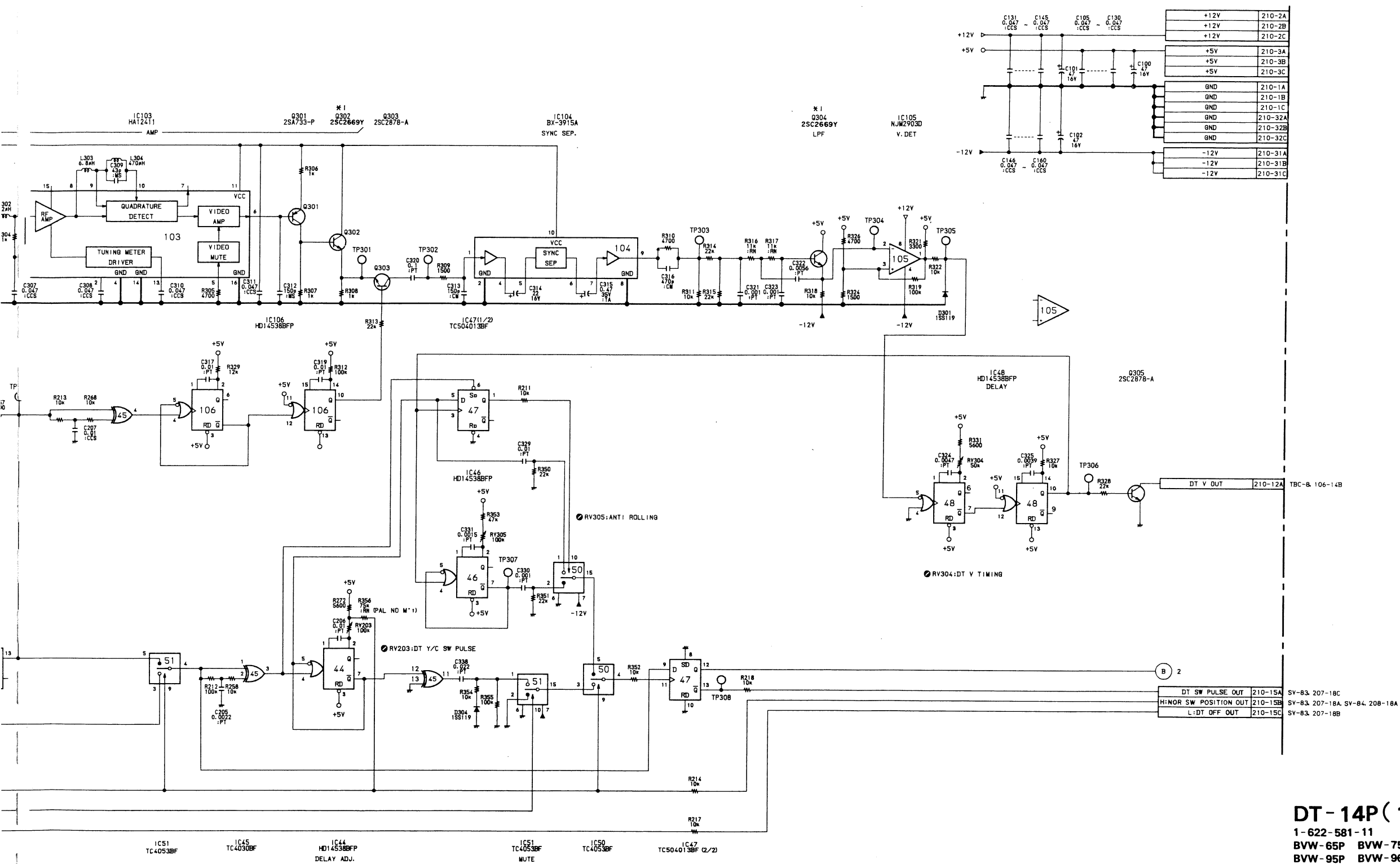
## 4

## 5

The schematic diagram illustrates the internal circuitry of a video receiver, organized into two primary functional blocks: the main video processing section (top) and the control section (bottom).

**Main Video Processing Section (Top):**

- Inputs:** DW-56, 110-12C, DW-56, 110-12B, DW-56, 110-8C, DW-56, 110-8B.
- ICs:** IC101 (CX20061), IC102 (ANG06P), IC103 (HA12411), IC104 (BX-3915A), IC105 (NJM2903D).
- Components:** L301 (100uH), R301 (120), C301 (0.01), C302 (0.01), C303 (0.047), C304 (47), C305 (47), C306 (12), C307 (0.047), C308 (0.047), C309 (0.047), C310 (0.047), C311 (0.047), C312 (150), C313 (150), C314 (22), C315 (35), C316 (47), C317 (100), C318 (100), C319 (100), C320 (0.01), C321 (0.01), C322 (0.01), C323 (0.01), C324 (150), C325 (150), C326 (4700), C327 (100), C328 (100), C329 (0.01), C330 (0.01), C331 (0.01), C332 (0.01), C333 (0.01), C334 (0.01), C335 (0.01), C336 (0.01), C337 (0.01), C338 (0.01), C339 (0.01), C340 (0.01), C341 (0.01), C342 (0.01), C343 (0.01), C344 (0.01), C345 (0.01), C346 (0.01), C347 (0.01), C348 (0.01), C349 (0.01), C350 (0.01), C351 (0.01), C352 (0.01), C353 (0.01), C354 (0.01), C355 (0.01), C356 (0.01), C357 (0.01), C358 (0.01), C359 (0.01), C360 (0.01), C361 (0.01), C362 (0.01), C363 (0.01), C364 (0.01), C365 (0.01), C366 (0.01), C367 (0.01), C368 (0.01), C369 (0.01), C370 (0.01), C371 (0.01), C372 (0.01), C373 (0.01), C374 (0.01), C375 (0.01), C376 (0.01), C377 (0.01), C378 (0.01), C379 (0.01), C380 (0.01), C381 (0.01), C382 (0.01), C383 (0.01), C384 (0.01), C385 (0.01), C386 (0.01), C387 (0.01), C388 (0.01), C389 (0.01), C390 (0.01), C391 (0.01), C392 (0.01), C393 (0.01), C394 (0.01), C395 (0.01), C396 (0.01), C397 (0.01), C398 (0.01), C399 (0.01), C400 (0.01), C401 (0.01), C402 (0.01), C403 (0.01), C404 (0.01), C405 (0.01), C406 (0.01), C407 (0.01), C408 (0.01), C409 (0.01), C410 (0.01), C411 (0.01), C412 (0.01), C413 (0.01), C414 (0.01), C415 (0.01), C416 (0.01), C417 (0.01), C418 (0.01), C419 (0.01), C420 (0.01), C421 (0.01), C422 (0.01), C423 (0.01), C424 (0.01), C425 (0.01), C426 (0.01), C427 (0.01), C428 (0.01), C429 (0.01), C430 (0.01), C431 (0.01), C432 (0.01), C433 (0.01), C434 (0.01), C435 (0.01), C436 (0.01), C437 (0.01), C438 (0.01), C439 (0.01), C440 (0.01), C441 (0.01), C442 (0.01), C443 (0.01), C444 (0.01), C445 (0.01), C446 (0.01), C447 (0.01), C448 (0.01), C449 (0.01), C450 (0.01), C451 (0.01), C452 (0.01), C453 (0.01), C454 (0.01), C455 (0.01), C456 (0.01), C457 (0.01), C458 (0.01), C459 (0.01), C460 (0.01), C461 (0.01), C462 (0.01), C463 (0.01), C464 (0.01), C465 (0.01), C466 (0.01), C467 (0.01), C468 (0.01), C469 (0.01), C470 (0.01), C471 (0.01), C472 (0.01), C473 (0.01), C474 (0.01), C475 (0.01), C476 (0.01), C477 (0.01), C478 (0.01), C479 (0.01), C480 (0.01), C481 (0.01), C482 (0.01), C483 (0.01), C484 (0.01), C485 (0.01), C486 (0.01), C487 (0.01), C488 (0.01), C489 (0.01), C490 (0.01), C491 (0.01), C492 (0.01), C493 (0.01), C494 (0.01), C495 (0.01), C496 (0.01), C497 (0.01), C498 (0.01), C499 (0.01), C500 (0.01), C501 (0.01), C502 (0.01), C503 (0.01), C504 (0.01), C505 (0.01), C506 (0.01), C507 (0.01), C508 (0.01), C509 (0.01), C510 (0.01), C511 (0.01), C512 (0.01), C513 (0.01), C514 (0.01), C515 (0.01), C516 (0.01), C517 (0.01), C518 (0.01), C519 (0.01), C520 (0.01), C521 (0.01), C522 (0.01), C523 (0.01), C524 (0.01), C525 (0.01), C526 (0.01), C527 (0.01), C528 (0.01), C529 (0.01), C530 (0.01), C531 (0.01), C532 (0.01), C533 (0.01), C534 (0.01), C535 (0.01), C536 (0.01), C537 (0.01), C538 (0.01), C539 (0.01), C540 (0.01), C541 (0.01), C542 (0.01), C543 (0.01), C544 (0.01), C545 (0.01), C546 (0.01), C547 (0.01), C548 (0.01), C549 (0.01), C550 (0.01), C551 (0.01), C552 (0.01), C553 (0.01), C554 (0.01), C555 (0.01), C556 (0.01), C557 (0.01), C558 (0.01), C559 (0.01), C560 (0.01), C561 (0.01), C562 (0.01), C563 (0.01), C564 (0.01), C565 (0.01), C566 (0.01), C567 (0.01), C568 (0.01), C569 (0.01), C570 (0.01), C571 (0.01), C572 (0.01), C573 (0.01), C574 (0.01), C575 (0.01), C576 (0.01), C577 (0.01), C578 (0.01), C579 (0.01), C580 (0.01), C581 (0.01), C582 (0.01), C583 (0.01), C584 (0.01), C585 (0.01), C586 (0.01), C587 (0.01), C588 (0.01), C589 (0.01), C590 (0.01), C591 (0.01), C592 (0.01), C593 (0.01), C594 (0.01), C595 (0.01), C596 (0.01), C597 (0.01), C598 (0.01), C599 (0.01), C600 (0.01), C601 (0.01), C602 (0.01), C603 (0.01), C604 (0.01), C605 (0.01), C606 (0.01), C607 (0.01), C608 (0.01), C609 (0.01), C610 (0.01), C611 (0.01), C612 (0.01), C613 (0.01), C614 (0.01), C615 (0.01), C616 (0.01), C617 (0.01), C618 (0.01), C619 (0.01), C620 (0.01), C621 (0.01), C622 (0.01), C623 (0.01), C624 (0.01), C625 (0.01), C626 (0.01), C627 (0.01), C628 (0.01), C629 (0.01), C630 (0.01), C631 (0.01), C632 (0.01), C633 (0.01), C634 (0.01), C635 (0.01), C636 (0.01), C637 (0.01), C638 (0.01), C639 (0.01), C640 (0.01), C641 (0.01), C642 (0.01), C643 (0.01), C644 (0.01), C645 (0.01), C646 (0.01), C647 (0.01), C648 (0.01), C649 (0.01), C650 (0.01), C651 (0.01), C652 (0.01), C653 (0.01), C654 (0.01), C655 (0.01), C656 (0.01), C657 (0.01), C658 (0.01), C659 (0.01), C660 (0.01), C661 (0.01), C662 (0.01), C663 (0.01), C664 (0.01), C



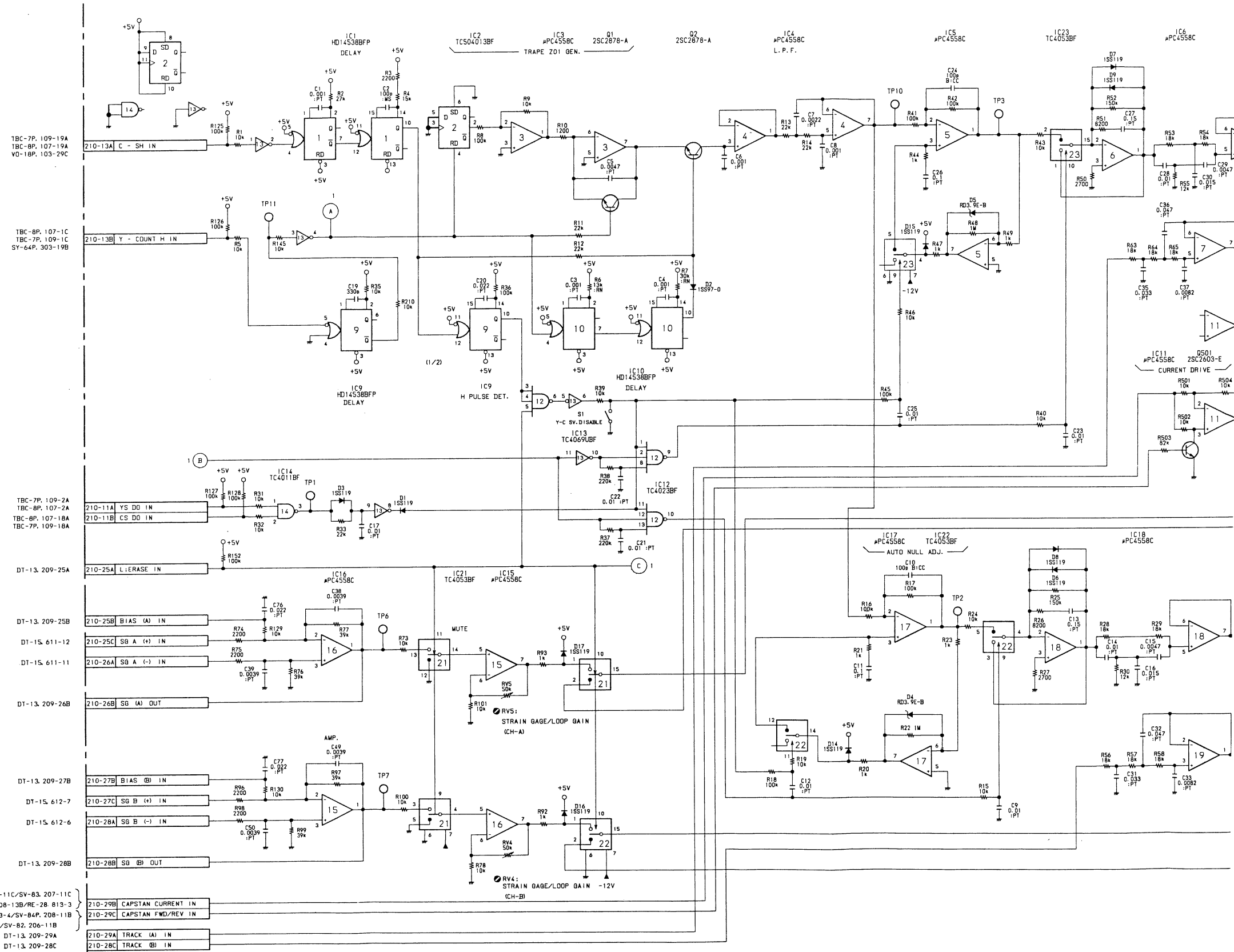
DT-14P (1/2)

1-622-581-11  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P



DT-14P (2/2) ; AUTO OFFSET, HYSTERESIS CANCEL

S/N 10061 through 10160



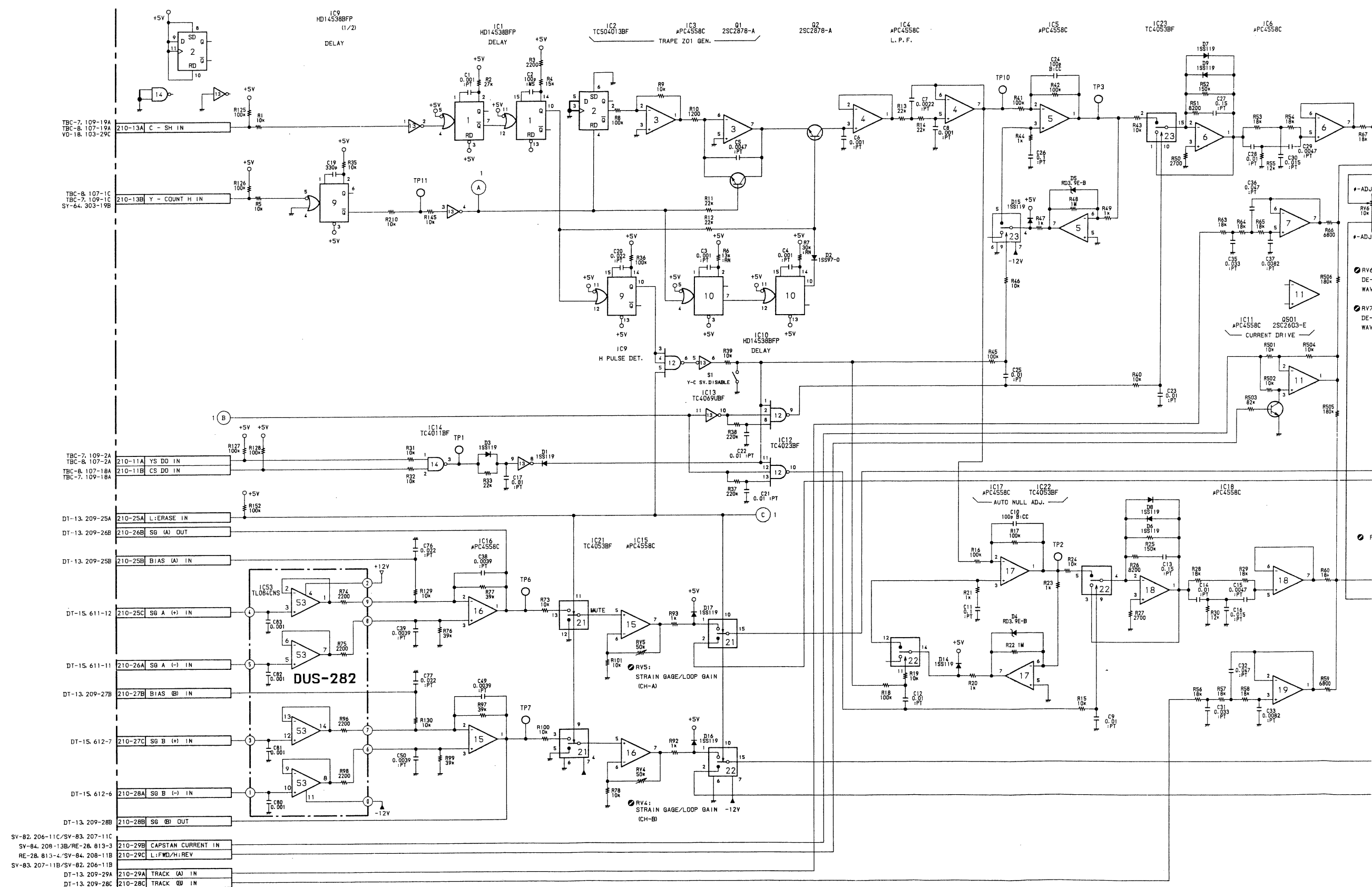
16-264 (a)

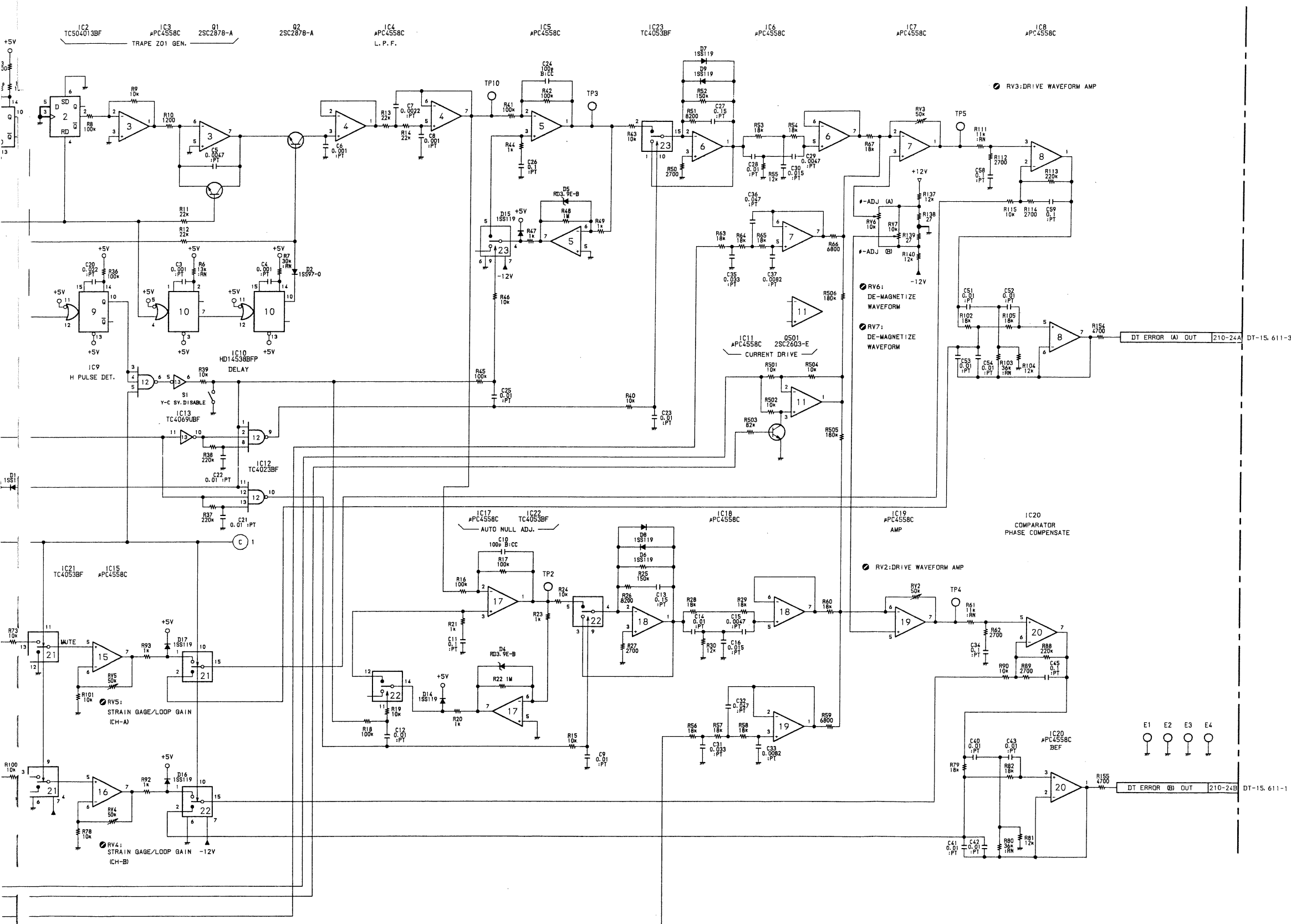
16-265 (a)



DT-14P (2/2); AUTO OFFSET, HYSTERESIS CANCEL  
DUS-282; STRAIN GAGE BUFFER

S/N 10161 and higher





# DT-14P (2/2)

1-622-581-11  
BVW-65P BVW-96P  
BVW-75P  
BVW-95P

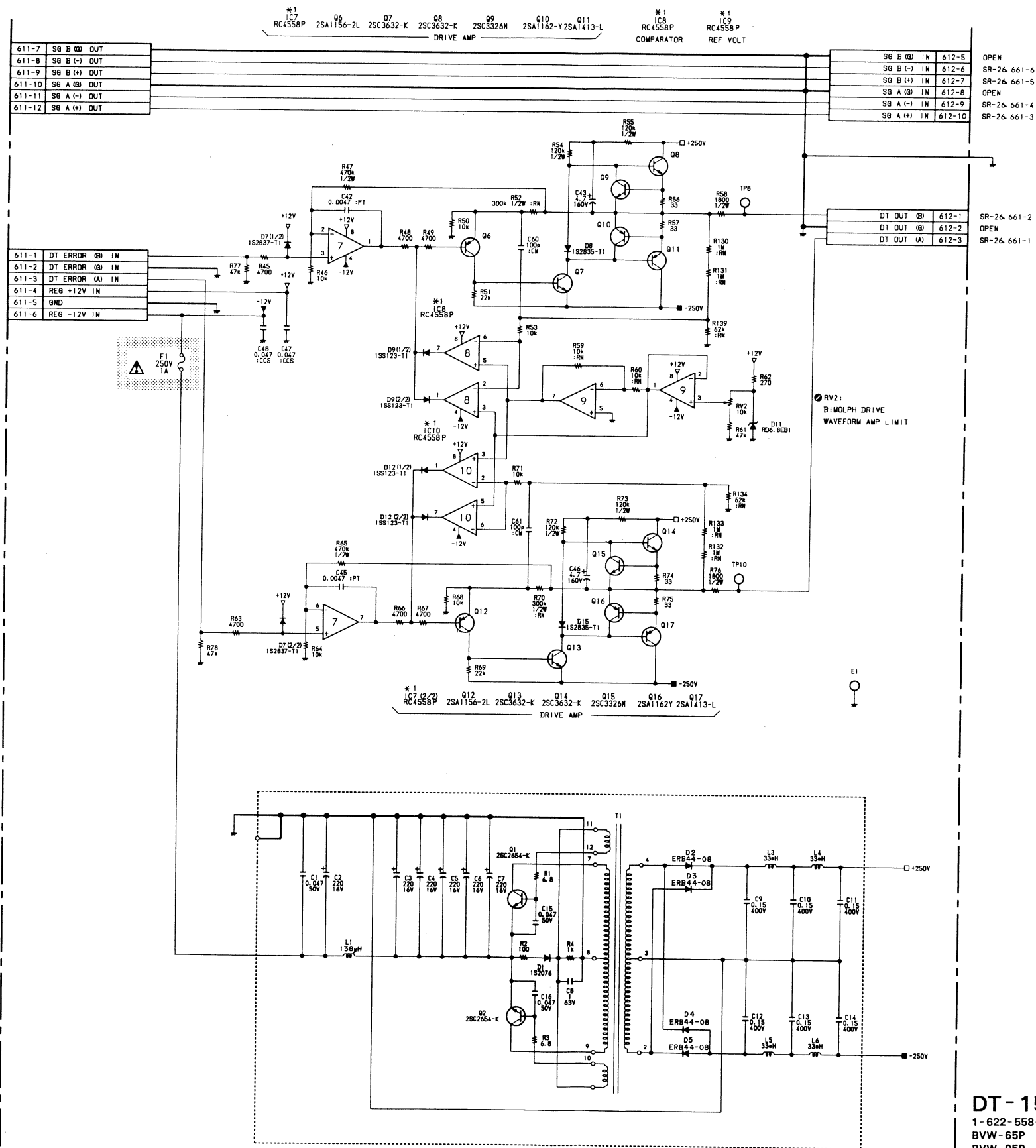
DT-15; POWER DRIVER

### NOTE


MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC7, IC8, IC9, IC10 NJM4558M → RC4558P	S/N 11677 ~

DT-14, 210-27A  
DT-14, 210-28A  
DT-14, 210-27C  
DT-14, 210-26C  
DT-14, 210-26A  
DT-14, 210-25C

DT-14, 210-24B  
DT-14, 210-24C  
DT-14, 210-24A



**NOTE:**

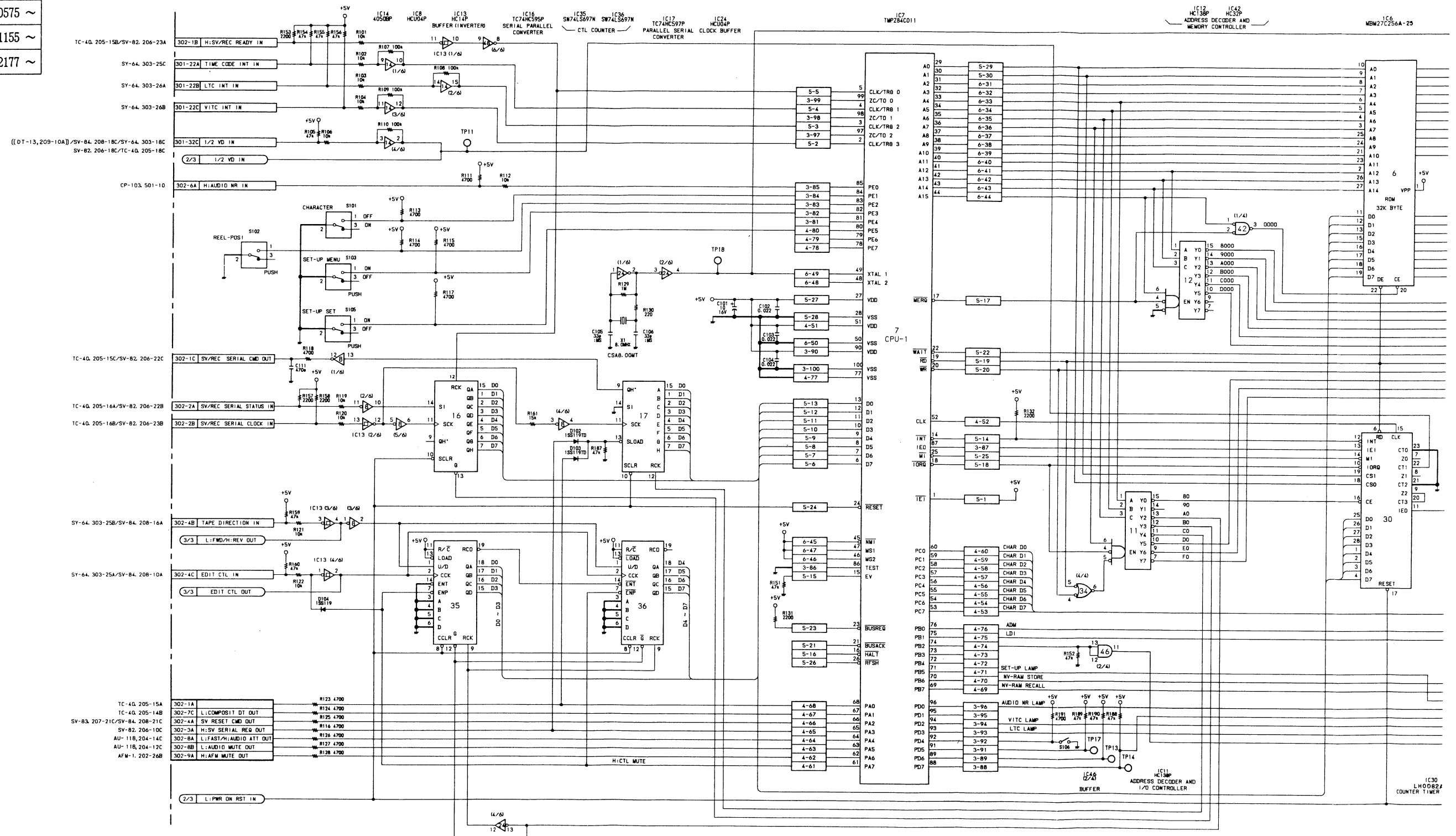
The shaded and -marked components are critical to safety.  
Replace only with same components as specified.

DT-15

1-622-558-12, 13, 14  
BVW-65P BVW-75P  
BVW-95P BVW-96P

### NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C112 13pF → 43pF	S/N 10575 ~
*2	C112 43pF → 33pF	S/N 11155 ~
*3	C107 560pF → 270pF	S/N 12177 ~

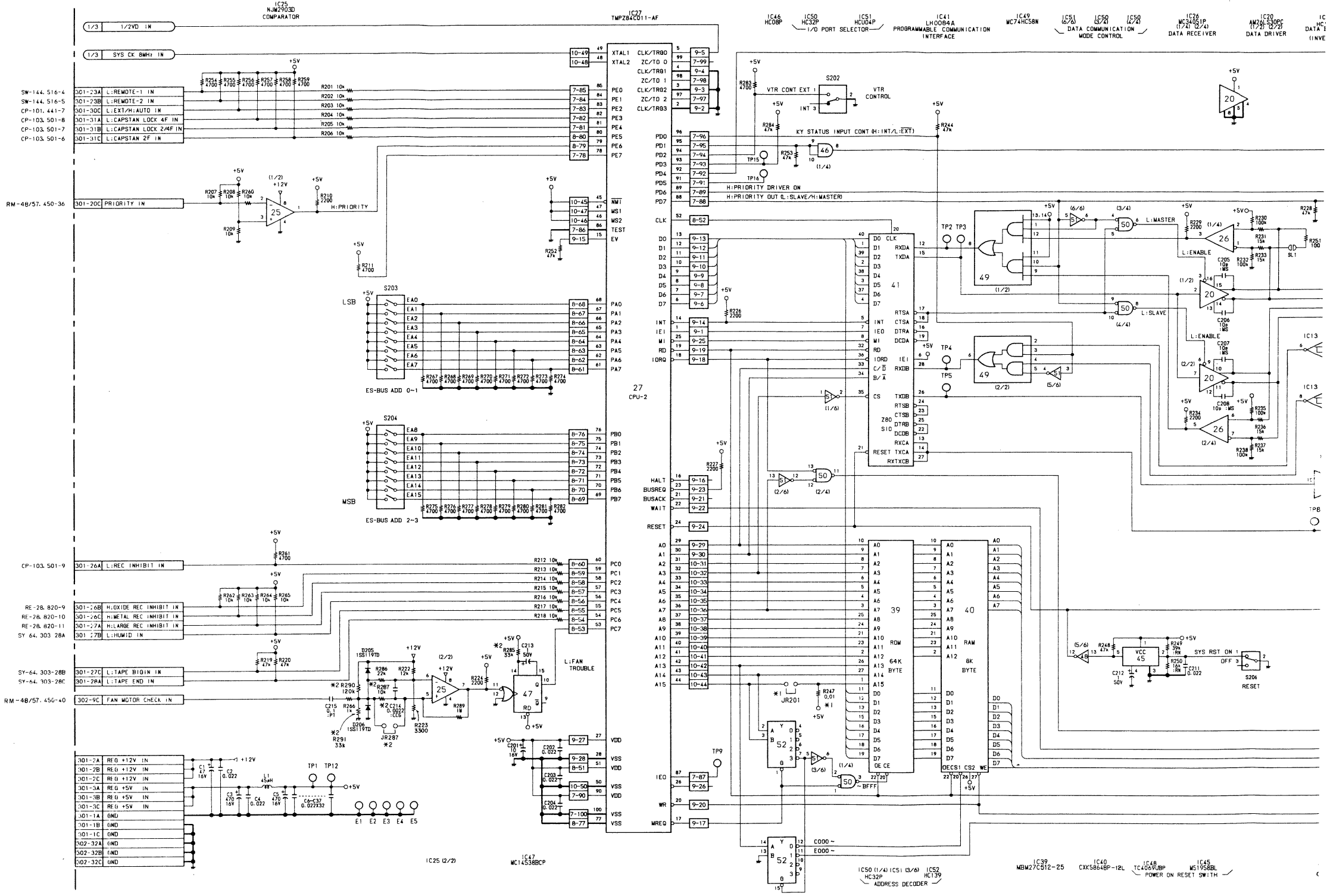




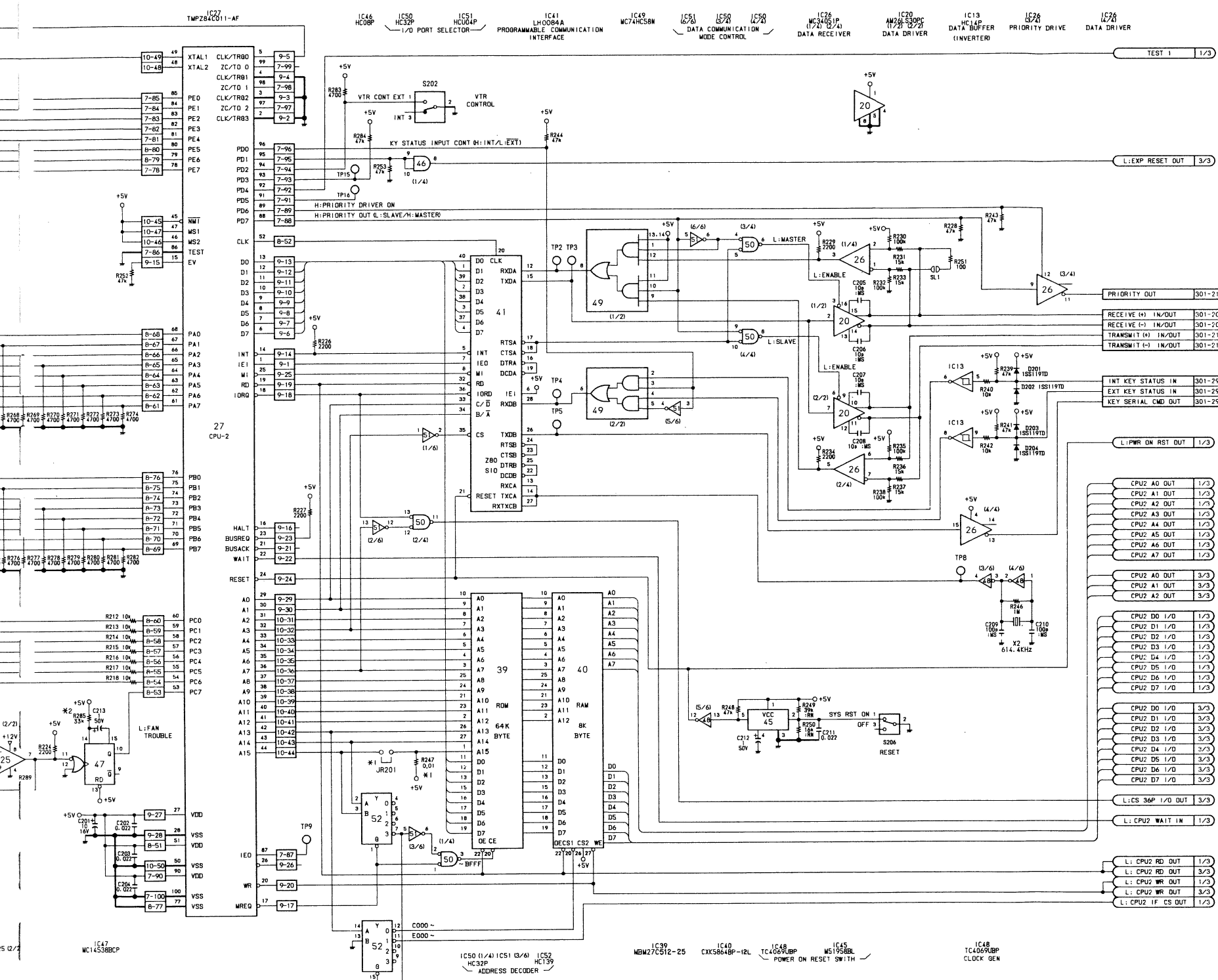
SY-61A (2/3) ; SYSTEM CONTROL, CPU-2, SERIAL INTERFACE

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R247 4700 → 0.01 R247 0.01 DELETED JR201 ADDED	S/N 10417 ~ S/N 10575 ~
*2	DELETED C214, R287 ADDED JR287, R290, R291 CHANGED R285 15k → 33k	S/N 12407 ~







RM-48/57, 450-39

RM-48/57, 450-34

RM-48/57, 450-35

RM-48/57, 450-37

RM-48/57, 450-38

SY-64, 304-5A

EXT. KEYBOARD

SY-64, 304-4C/EXT. KEYBOARD

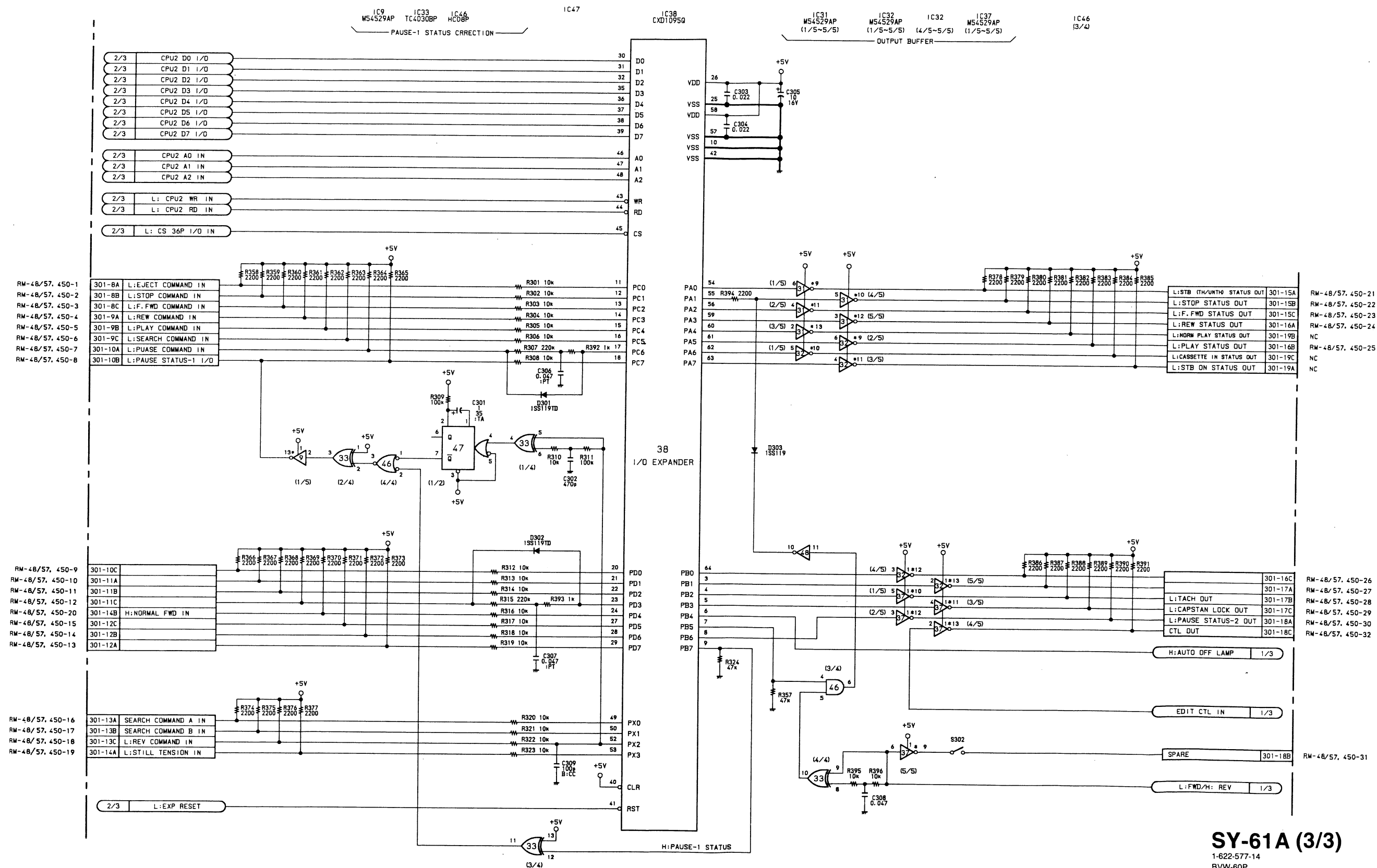
SY-61A (2/3)

1-622-577-14

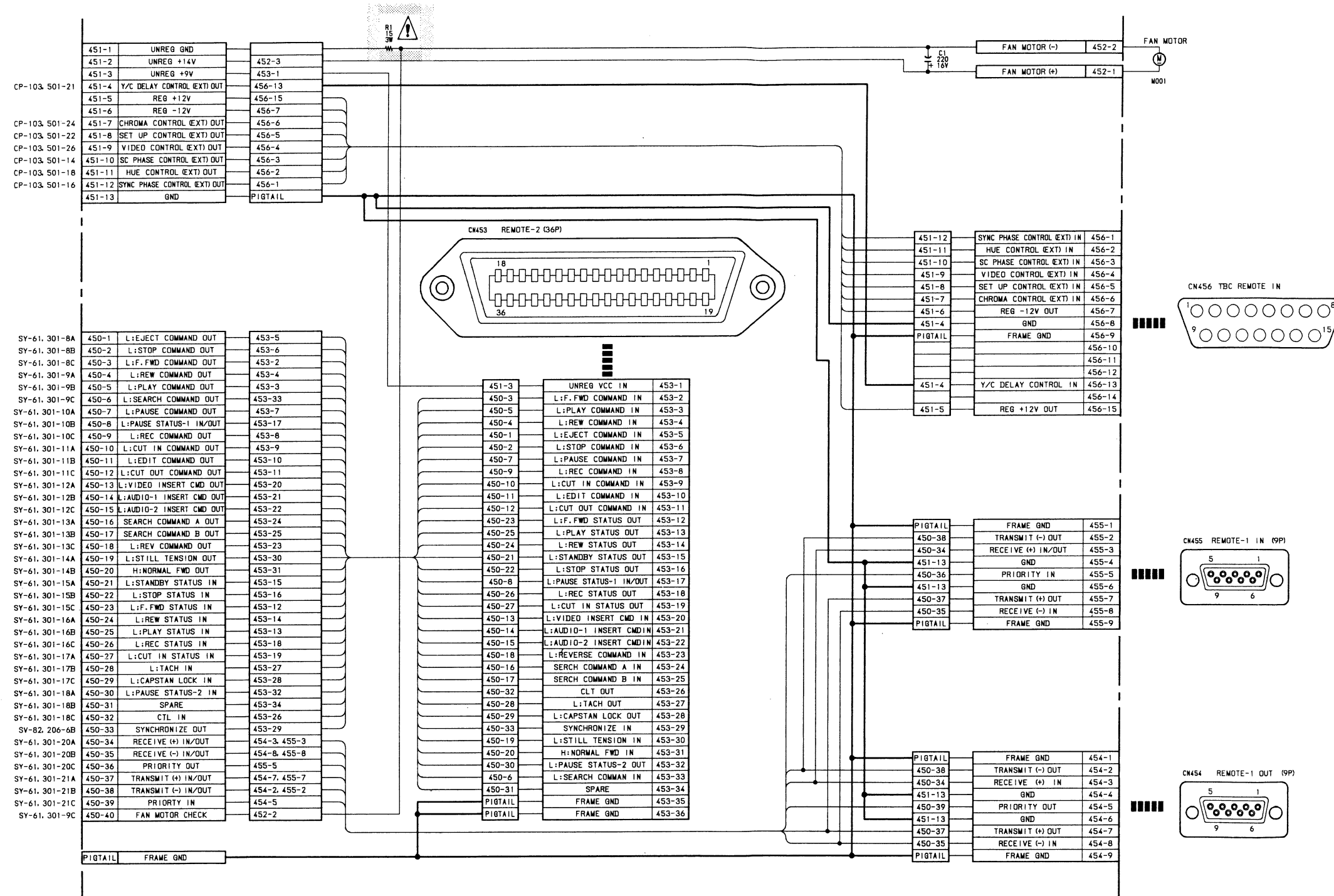
BVW-60P

BVW-65P


SY-61A (3/3); SYSTEM CONTROL, PARALLEL INTERFACE  
RM-57; REMOTE CONNECTOR



1-622-577-14  
BVW-60P  
BVW-65P



## NOTE:

The shaded and -marked components are critical to safety.  
Replace only with same components as specified.

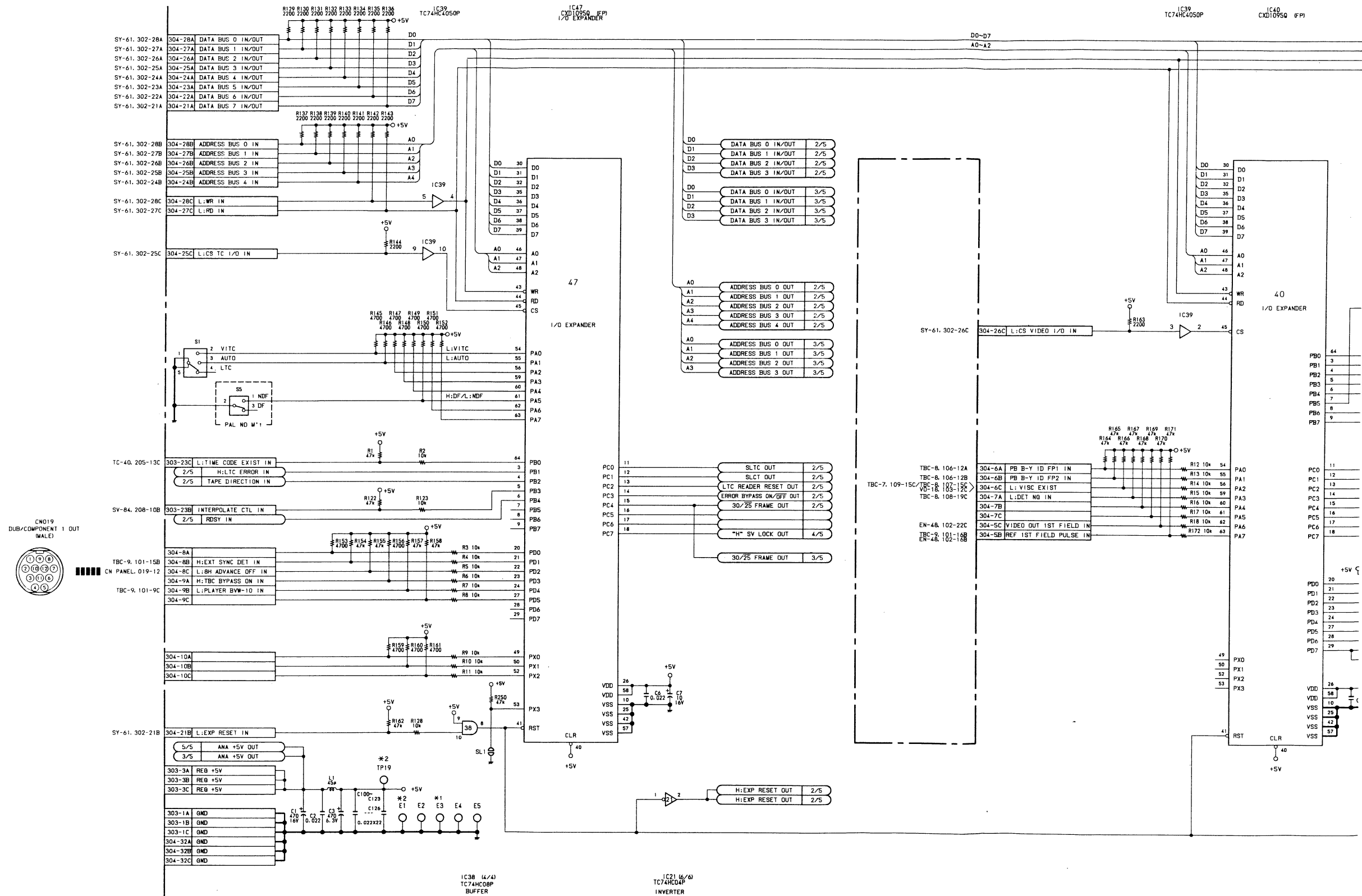
## RM-57

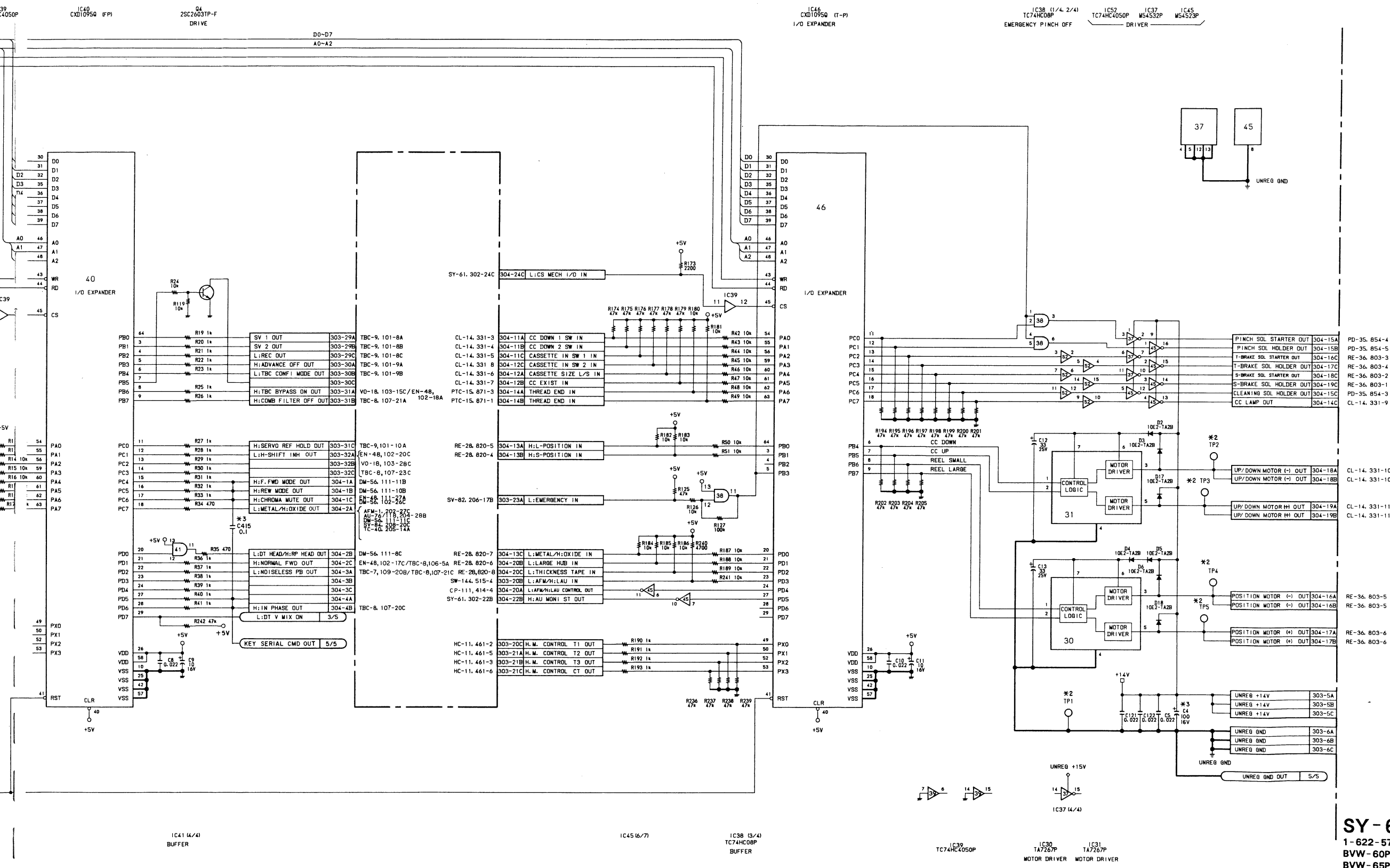
1-624-153-11, 12, 13  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

## SY-64AP (1/5); I/O EXPANDER

## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	E3 DELETED	S/N 10770 ~
*2	DELETED TP1 ~ TP5, E1, TP19	S/N 11425 ~
*3	C4 220/25V → C415 ADDED 100/16V	S/N 12407 ~



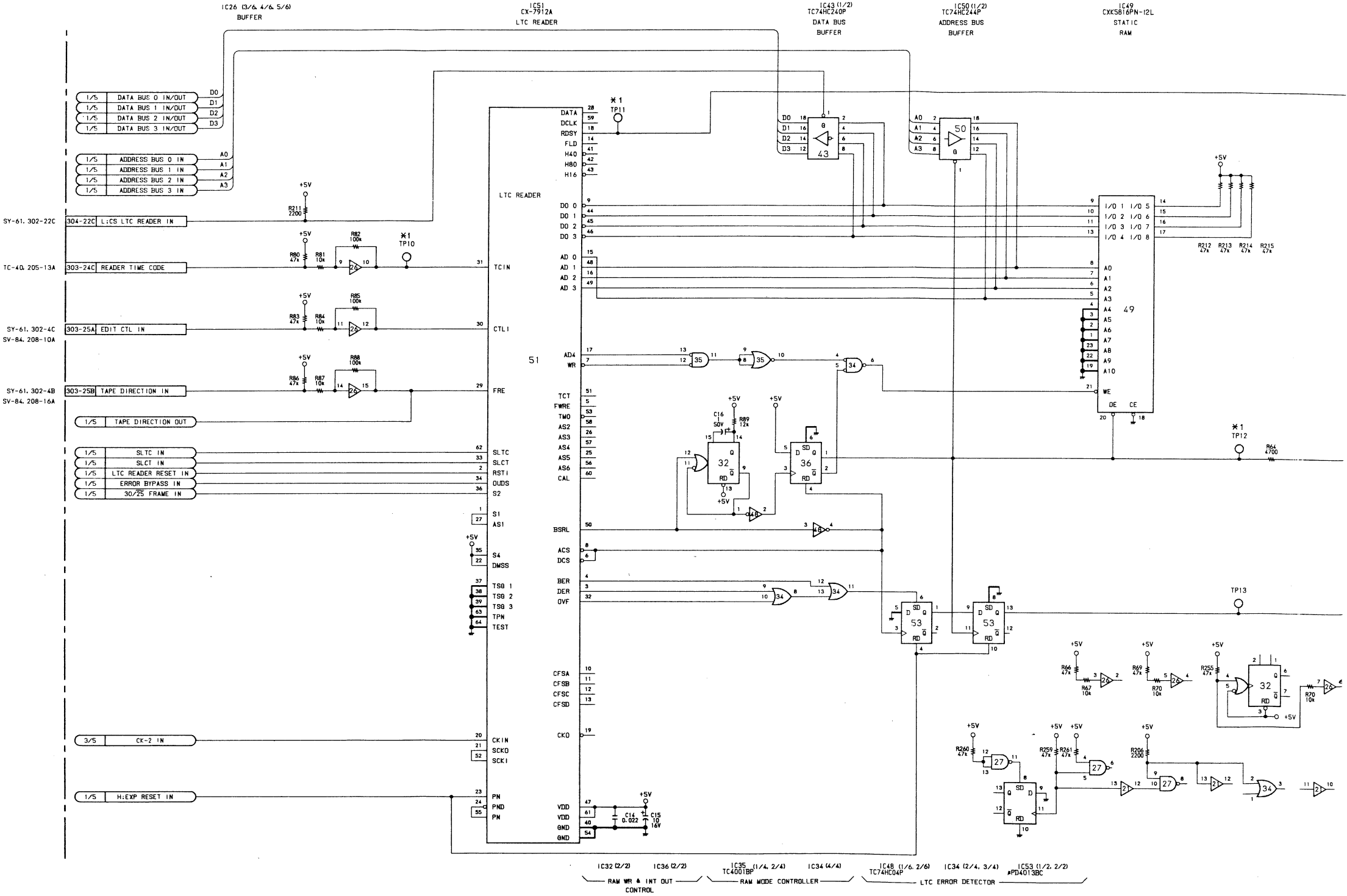


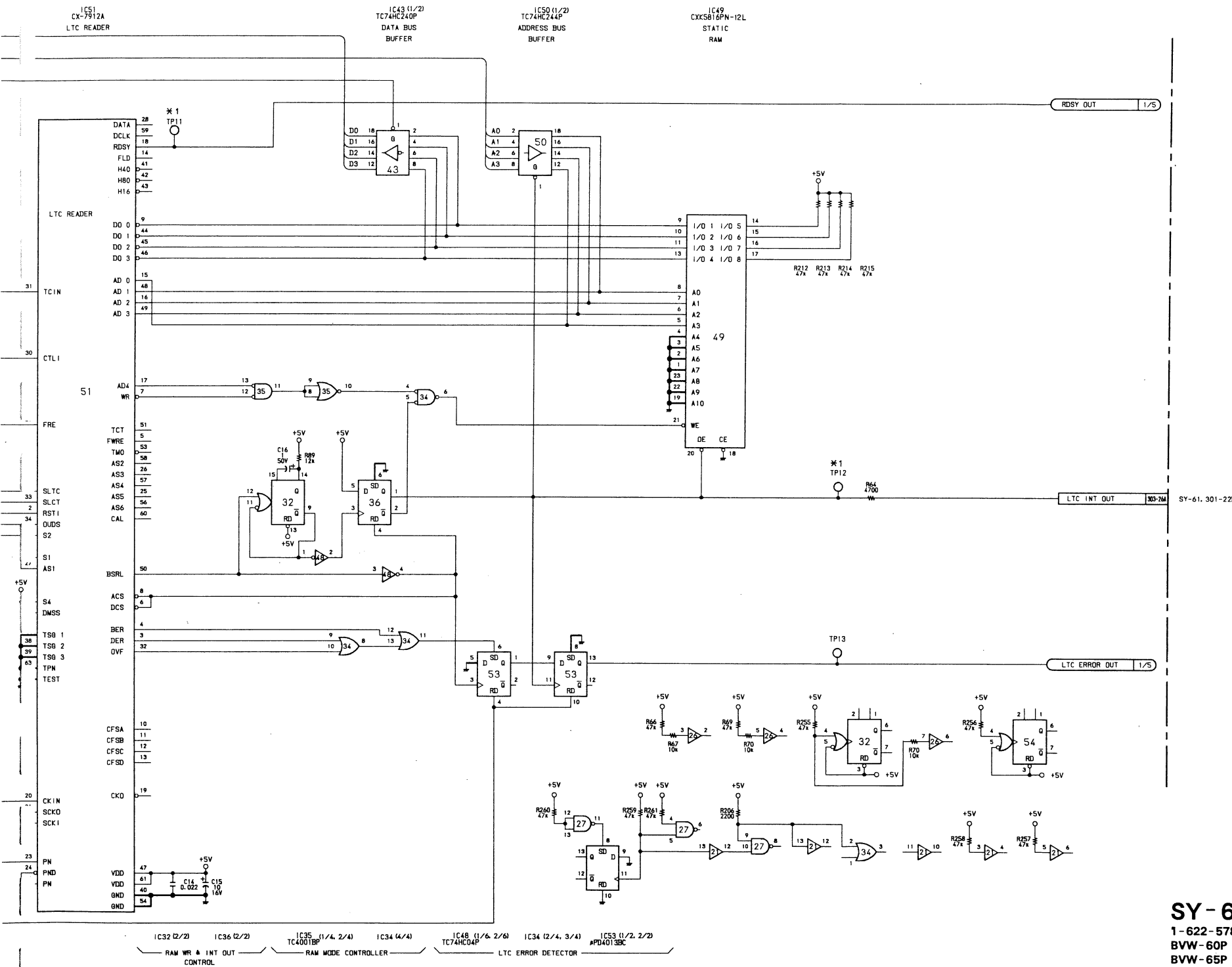
**SY-64AP(1/5)**  
 1-622-578-21  
 BVW-60P  
 BVW-65P

SY-64AP (2/5) ; LTC READER

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	DELETED TP10 ~ TP12	S/N 11425 ~





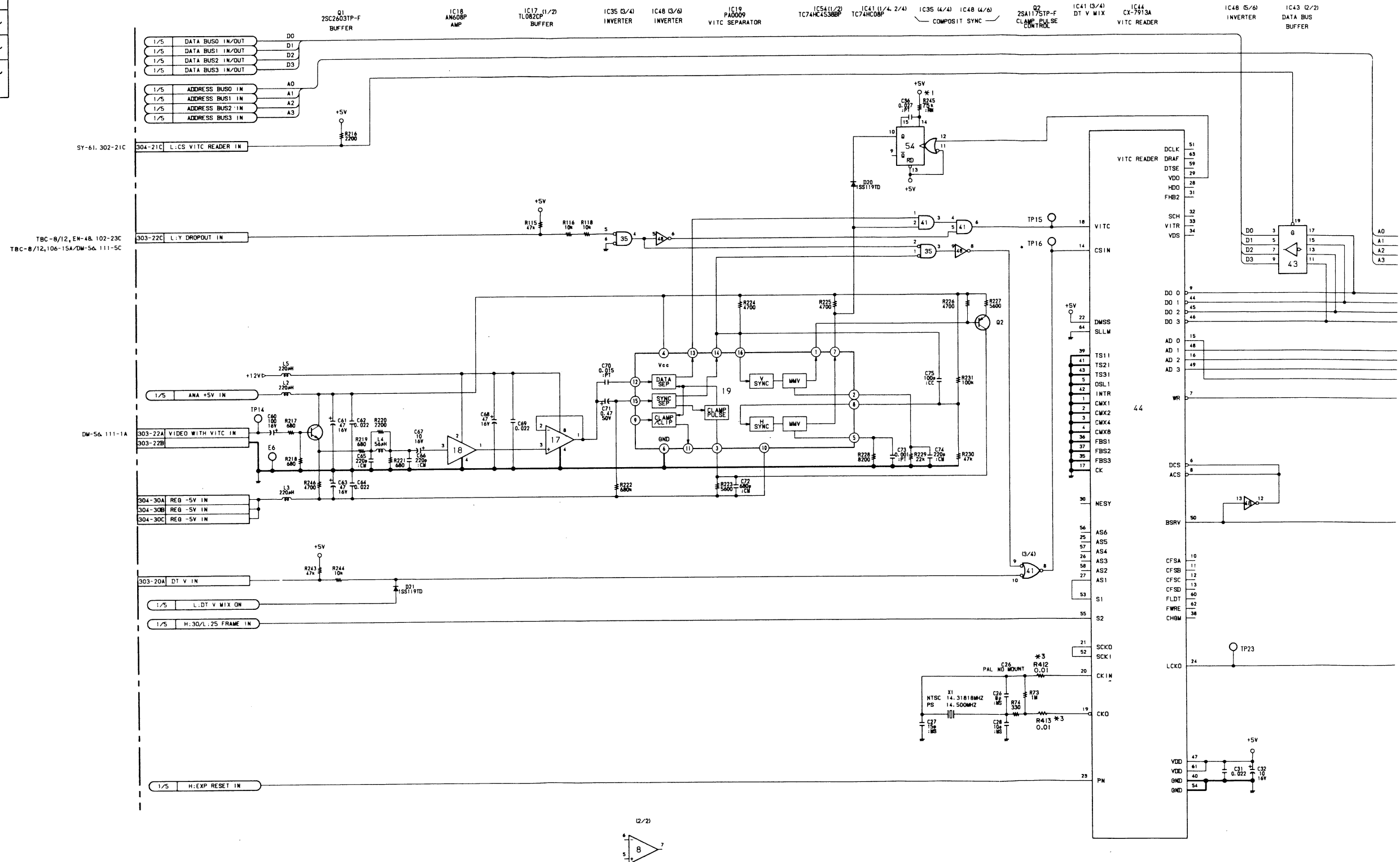
SY-64AP (2/5)

1-622-578-21  
BVW-60P  
BVW-65P  
BVW-95P

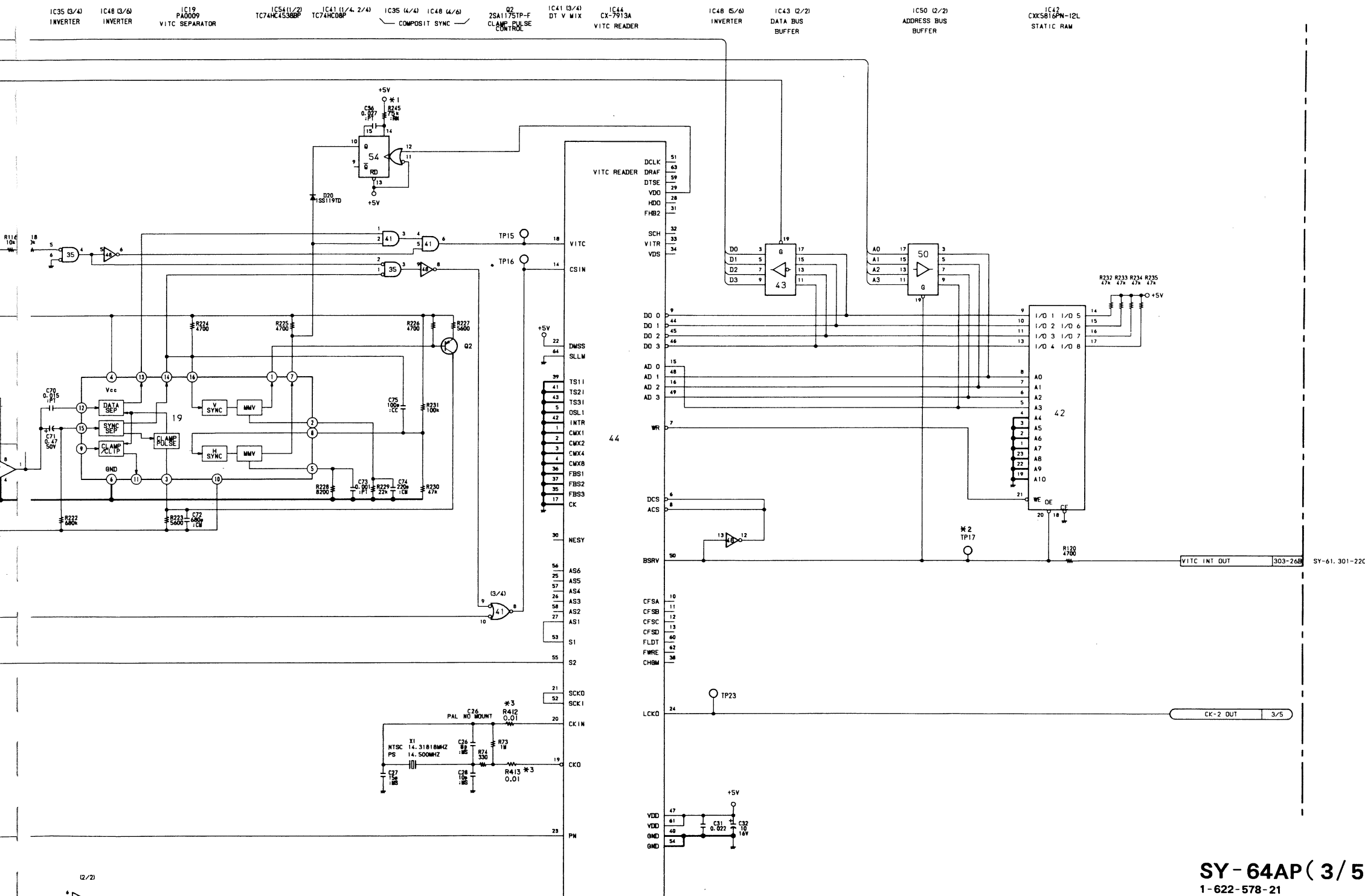
SY-64AP (3/5) ; VITC READER

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R245 62k → 75k	S/N 11155 ~
*2	TP17 DELETED	S/N 11425 ~
*3	JR1 → R412 JR3 → R413	S/N 12302 ~





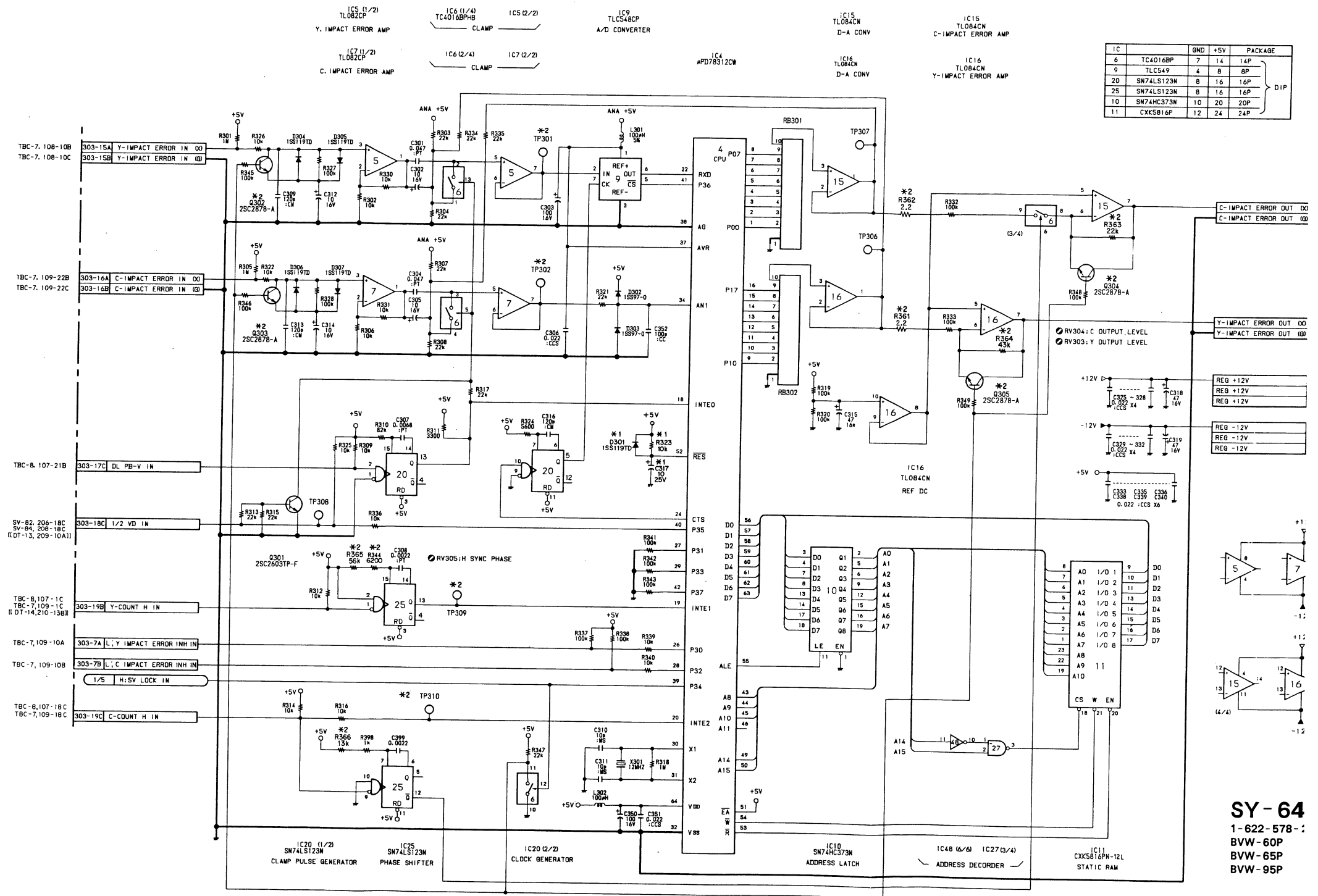


**SY-64AP (3/5)**  
 1-622-578-21  
 BVW-60P  
 BVW-65P  
 BVW-95P

SY-64AP (4/5); TIME BASE IMPACT ERROR CORRECTOR  
SY-64AP (5/5); SENSOR AMPLIFIER

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C317 10/25V DELETED D301 1SS119 DELETED R323 10k DELETED	S/N 10544 ~
*2	DELETED Q302~ Q305 TP301, TP302, TP309, TP310, TP401, E401 R344 1k → 6200 RV303 100k → RV304 100k → R364 43k RV305 100k → R363 22k RV399 100k → R365 56k S301 → R361 2.2 S302 → R362 2.2	S/N 11425 ~

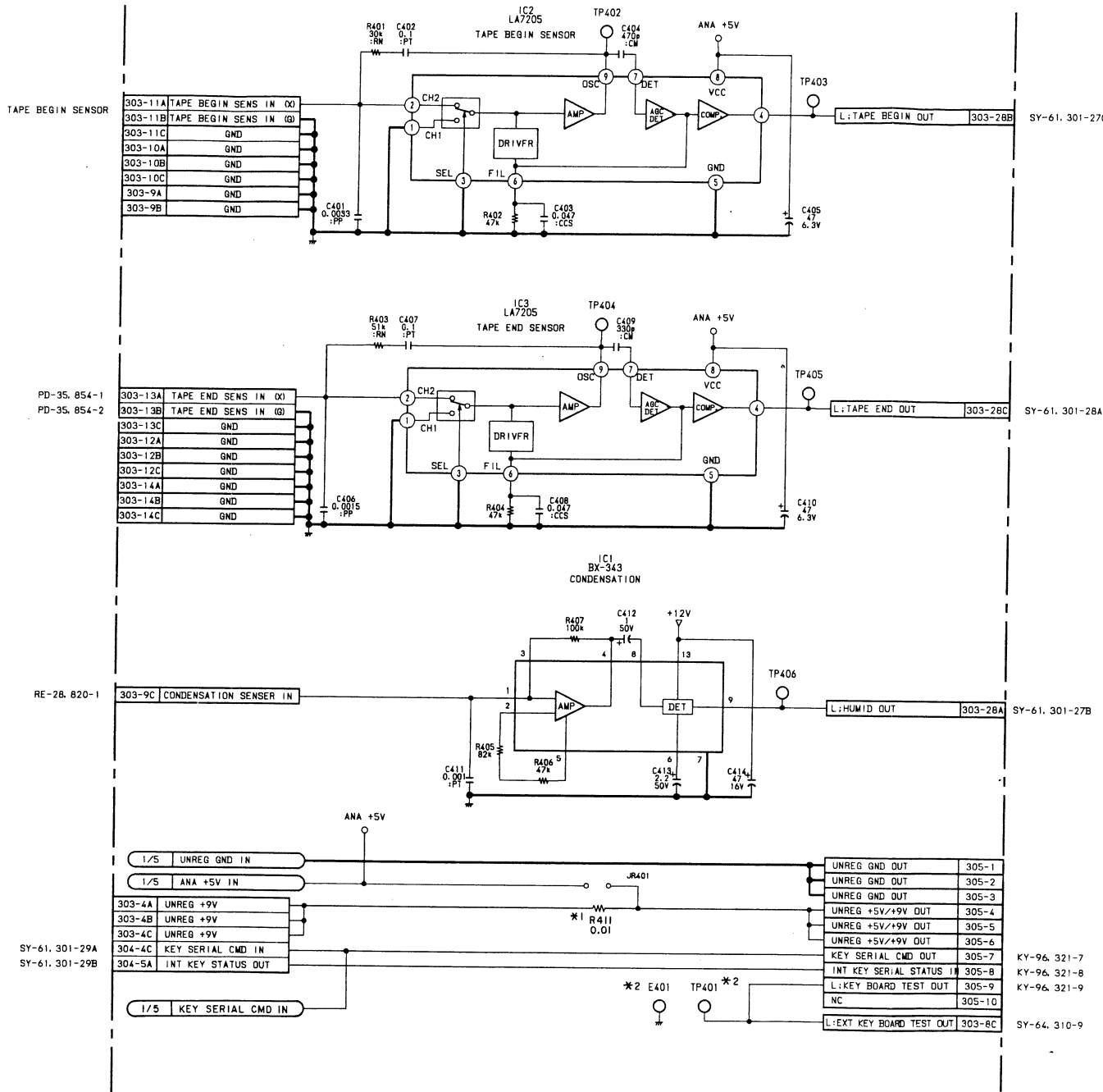
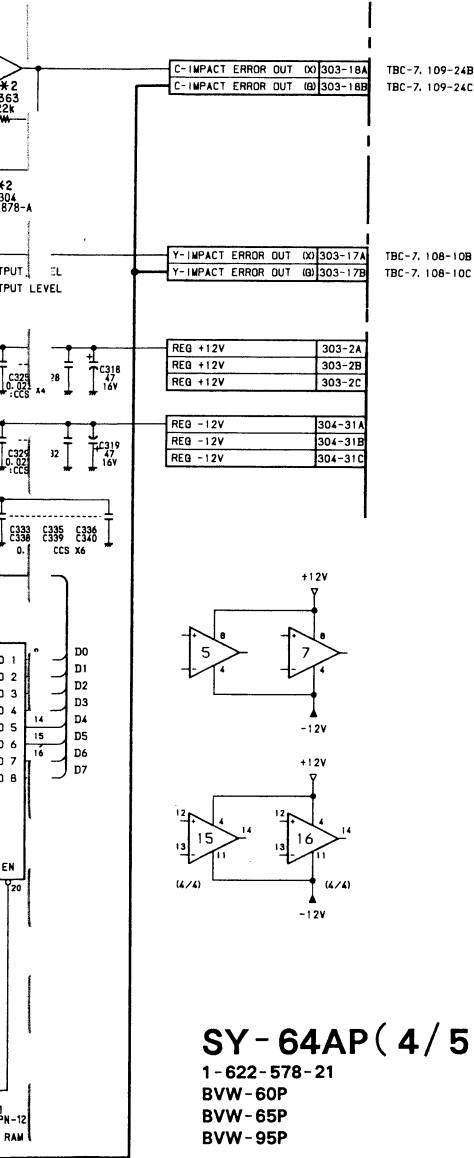


SY-64  
1-622-578-1  
BVW-60P  
BVW-65P  
BVW-95P

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	JR402 → R411	S/N 12302 ~

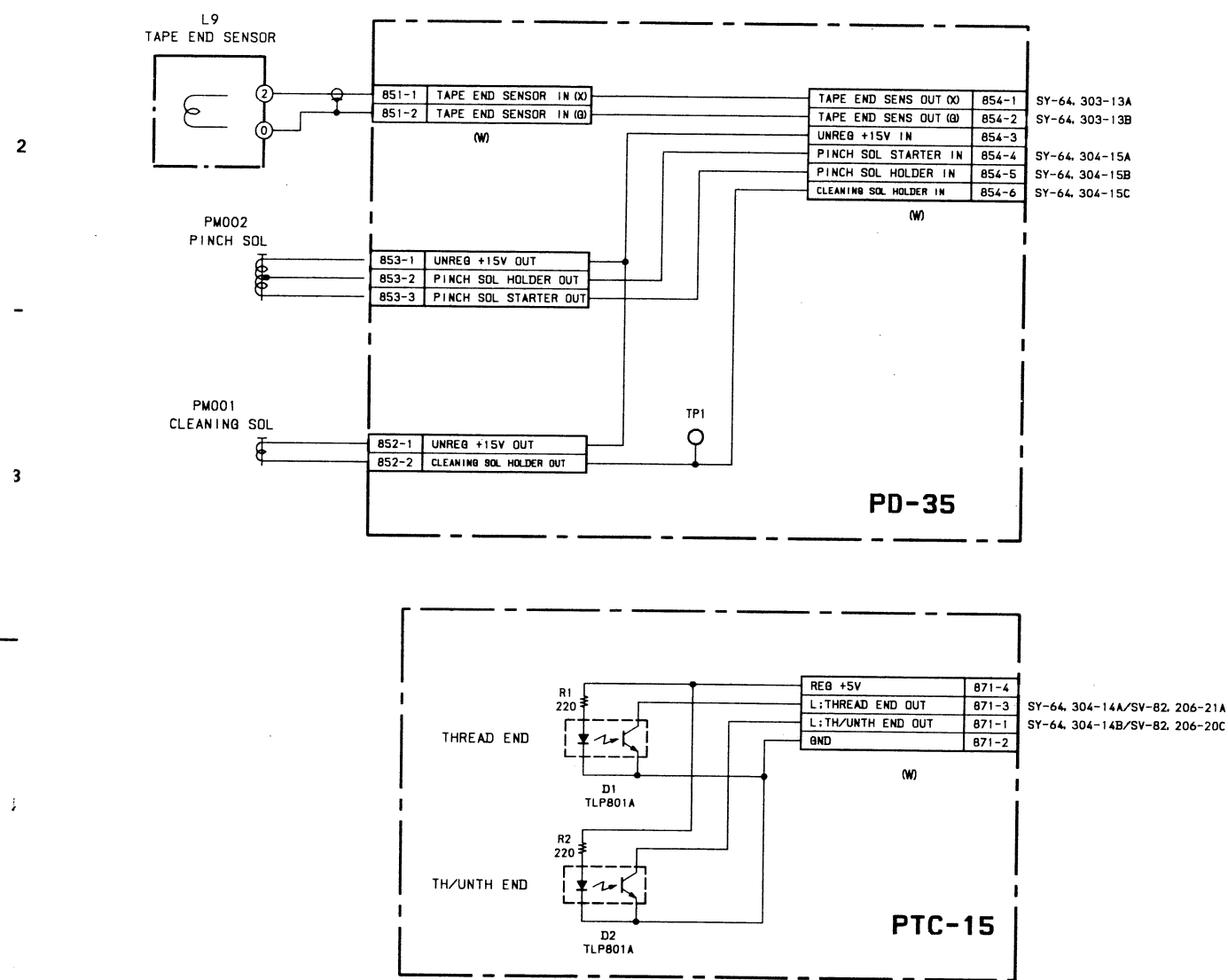
IC	GND	+5V	PACKAGE
1	7	14	14P
2	4	8	8P
3	8	16	16P
4	8	16	16P
5	8	16	16P
6	10	20	20P
7	12	24	24P



**PD-35**; PINCH/CLEANING SOLENOID  
**PTC-15**; THREAD/UNTHREAD END SENSOR  
**CL-14**; CASSETTE-UP COMPARTMENT  
**CL-24**; CASSETTE-UP COMPARTMENT LED  
**PC-32/47**; LARGE/SMALL CASSETTE DETECTOR  
**PC-33**; CASSETTE DOWN DETECTOR  
**PC-41**; CASSETTE IN DETECTOR  
**CCM-2**; UP/DOWN MOTOR  
**HC-11**; HOURS METER

# NOTE

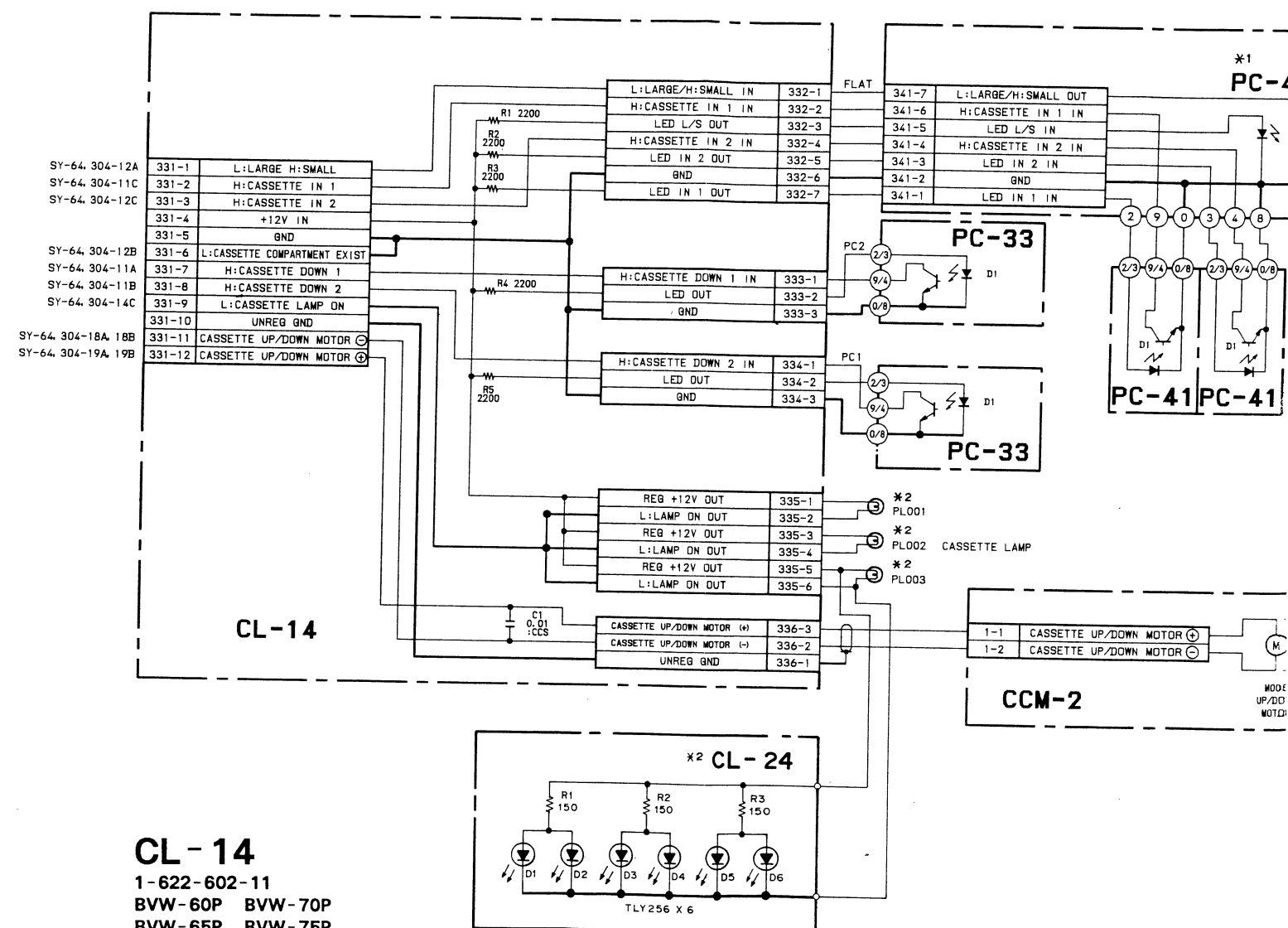
MARK	CHANGE INFORMATION	SERIAL NO.
*1	PC-32 → PC-47	S/N 10192 ~
*2	DELETED P001, P002, P003 ADDED CL-24	S/N 12112 ~



## PD-35

1-622-596-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

16-324



## CL-14

1-622-602-11  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P

16-325

A

B

C

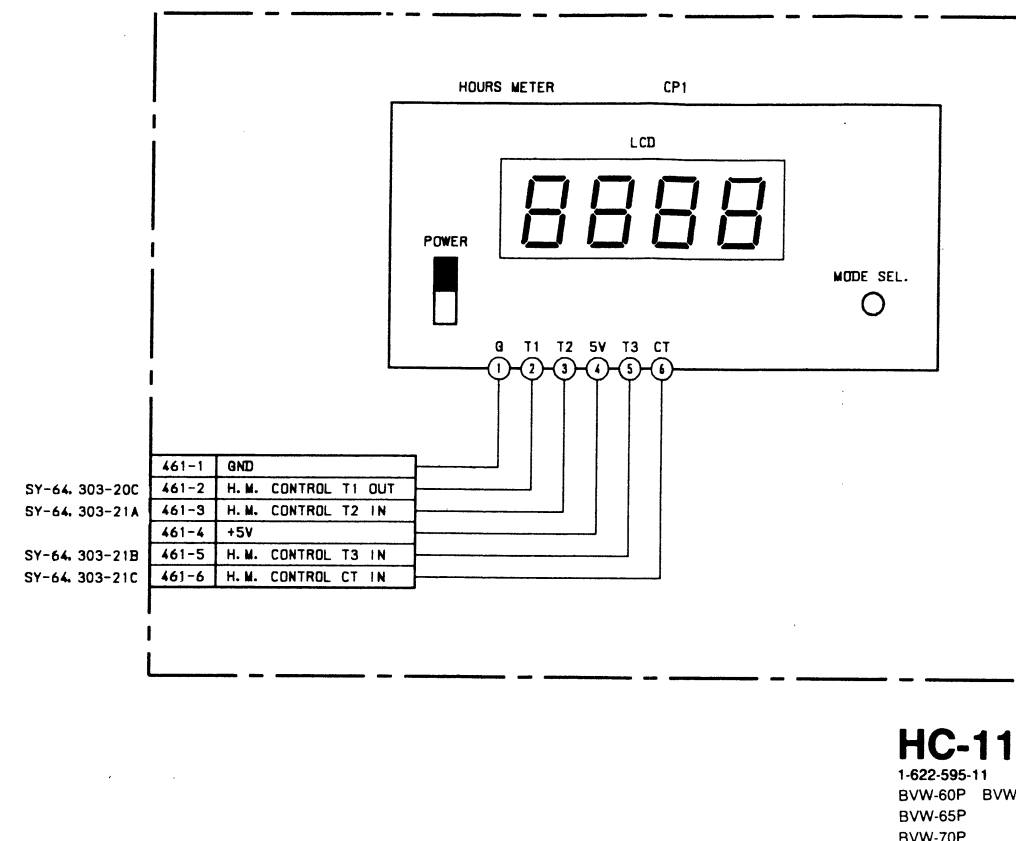
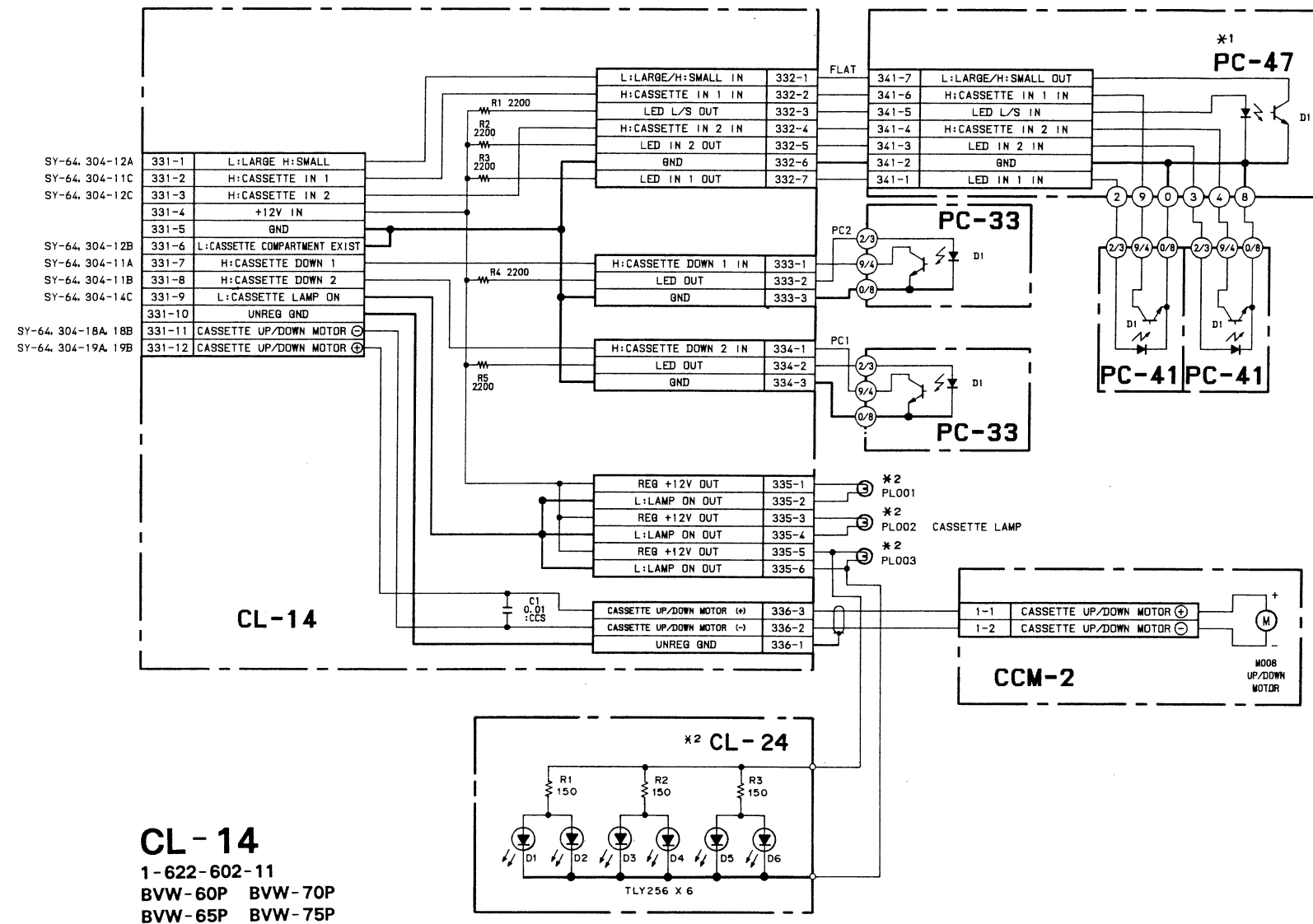
D

E

F

G

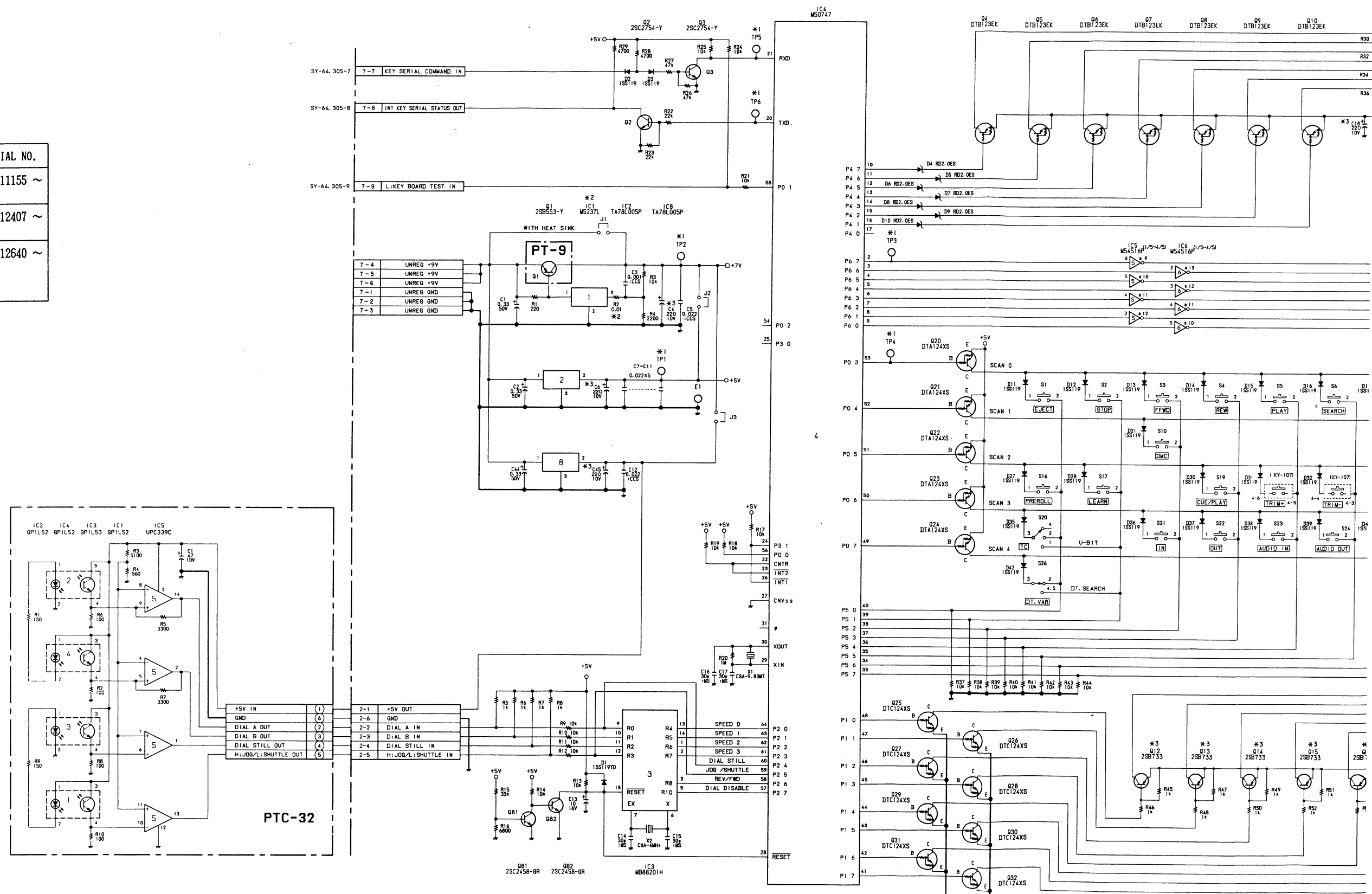
H



KY-96B; KEY BOARD  
 KY-107; KEY BOARD  
 DP-71A; TIME COUNTER DISPLAY  
 PTC-32; SEARCH DIAL  
 PT-9; POWER TRANSISTOR

## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	TP1, 2, 3, 4, 5, 6 DELETED	S/N 11155 ~
*2	IC1 M5236L → M5237L R2 15k → 0.01	S/N 12407 ~
*3	C4, C6, C18, C19, C45 470/10V → 220/10V Q12~Q19 2SB822-R → 2SB733	S/N 12640 ~

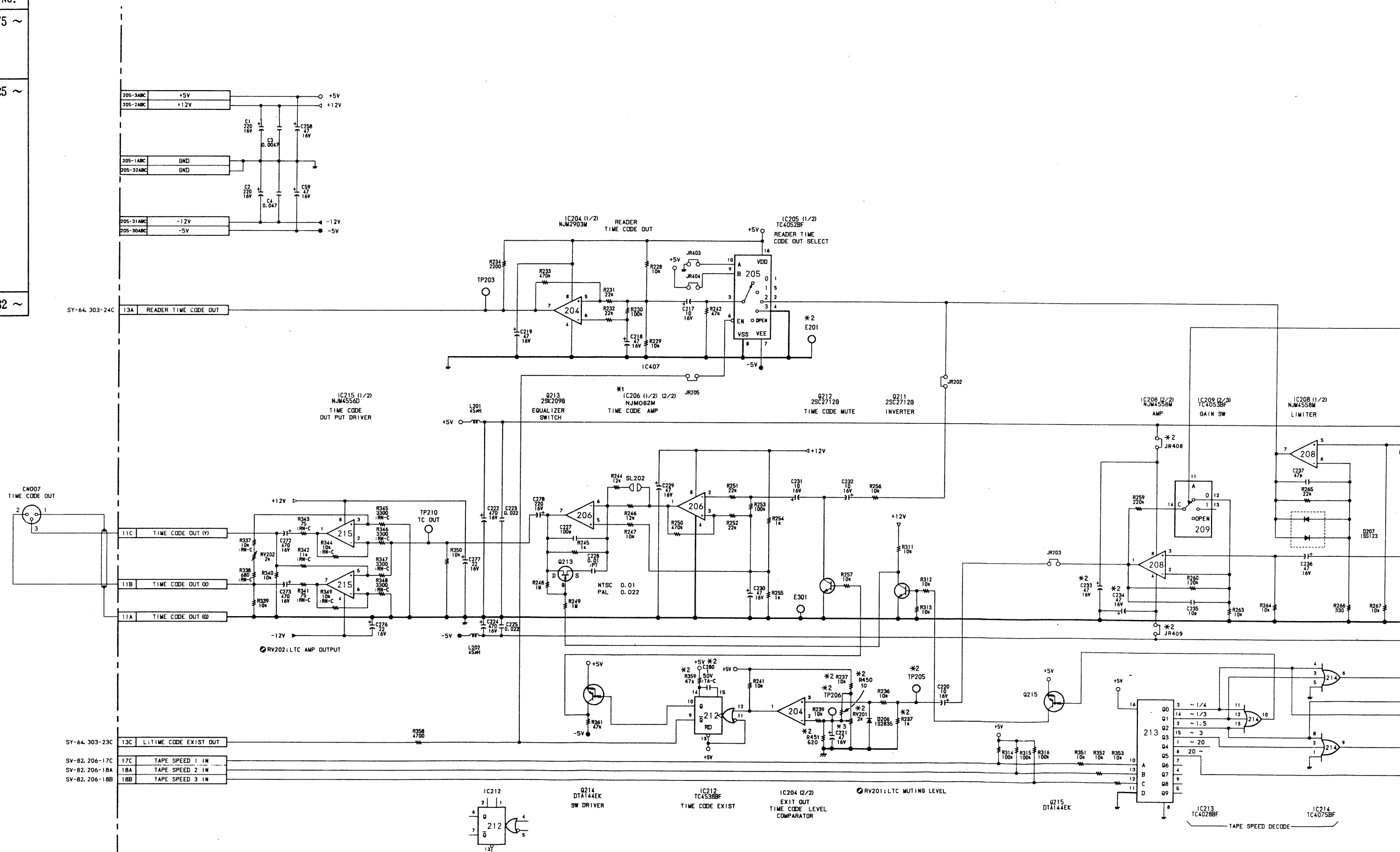




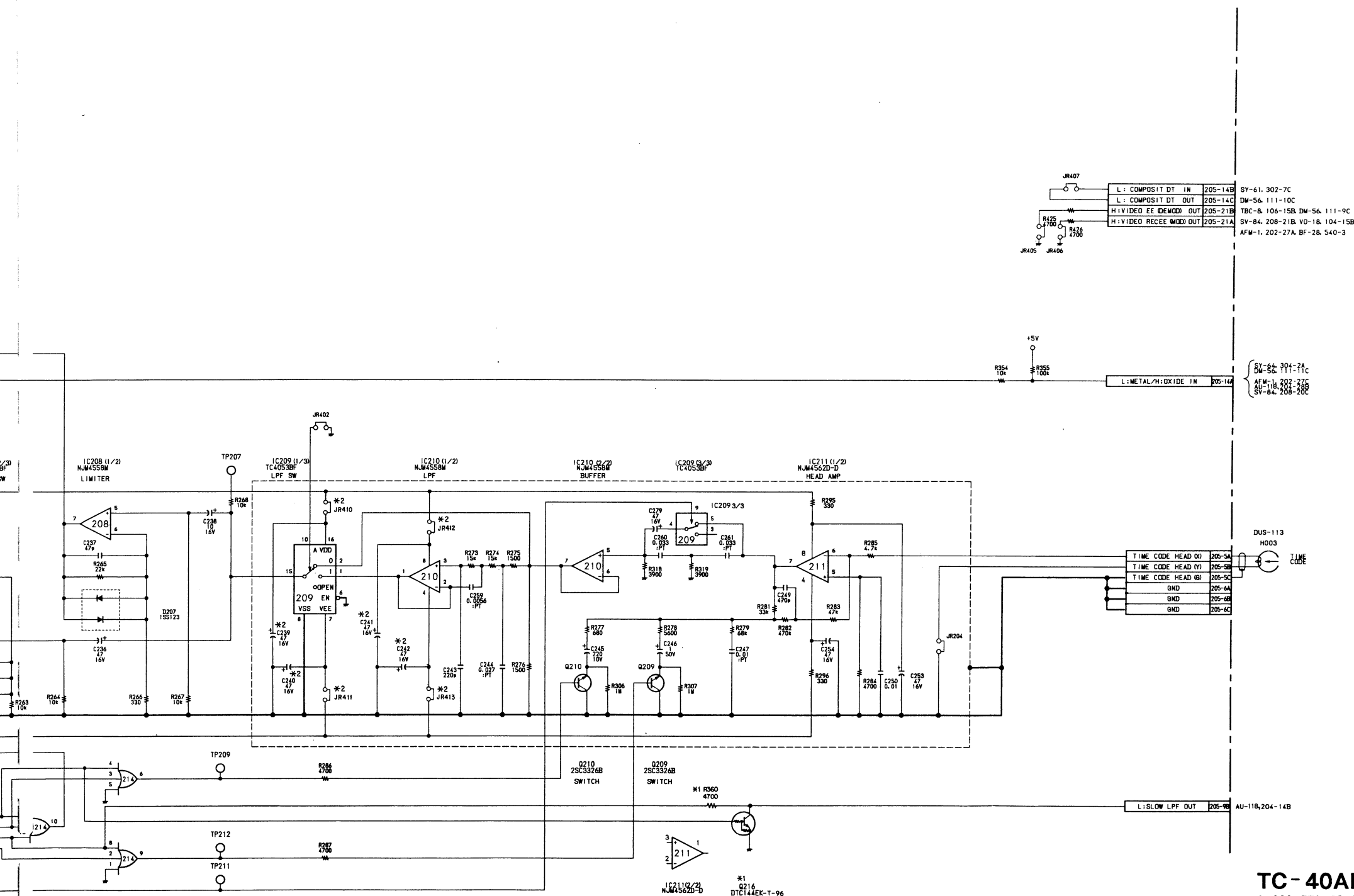
## TC-40AP; LTC PB AMPLIFIER

## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	C403 47 DELETED IC206 TL082CPS → NJM082M Q216 DTC144EK DELETED R360 4700 ADDED	S/N 10575 ~
*2	DELETED C233, C234, C239, C240, C241, C242, R237, RV201, TP205, TP206, E201 C280 0.15/35V → 1/50V R359 330k →47k R450 10 ADDED R451 620 ADDED R238 → R237 R258 → JR408 R261 → JR409 R269 → JR410 R270 → JR411 R271 → JR412 R272 → JR413	S/N 11425 ~
*3	C221 47/16V DELETED	S/N 12032 ~





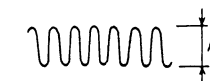


**TC-40AP**  
 1-622-579-22, 23  
 BVW-60P  
 BVW-65P  
 BVW-95P

**TP207(A-1)**

• Play back the recorded tape in the modes below.

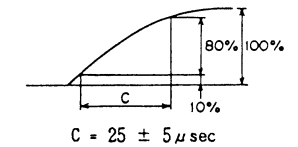
REW FWD × 1/5  
 REV × 5 FWD × 5  
 REV × 1/5 F.FWD



A = 100mV or more (OXIDE TAPE)  
 A = 130mV or more (METAL TAPE)

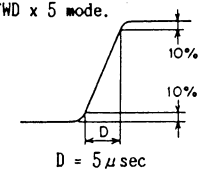
**TP210(D-1)**

• Play back a CTL signal on alignment tape CR5-1A.



C = 25 ± 5 μsec

• Play back a CTL signal on alignment tape CR5-1A in the FWD × 5 mode.

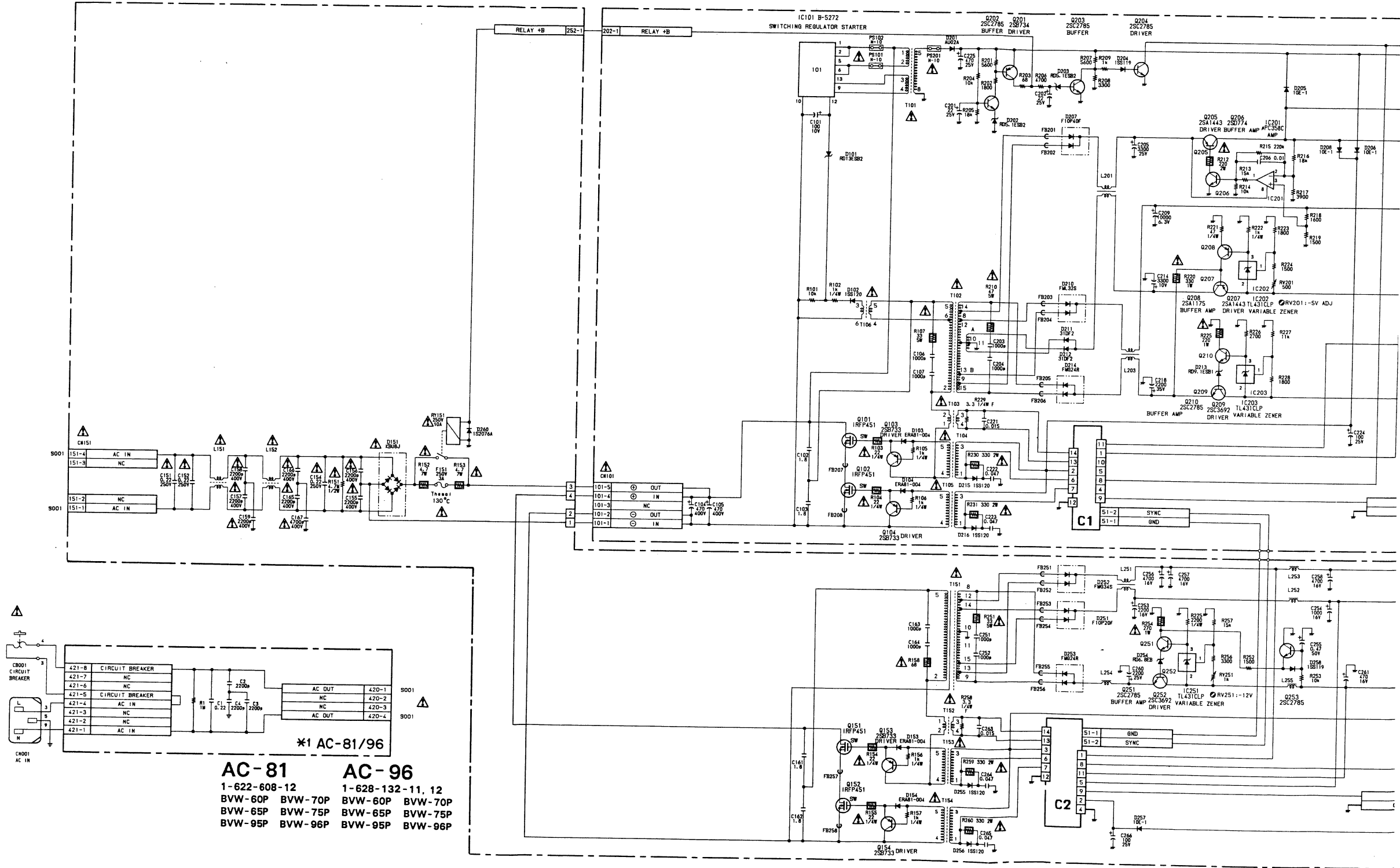


D = 5 μsec

AC-81/96; RELAY BOARD OF AC INLET  
 C1; SWITCHING REGULATOR  
 C2; SWITCHING REGULATOR  
 M1; SWITCHING REGULATOR  
 M2; SWITCHING REGULATOR

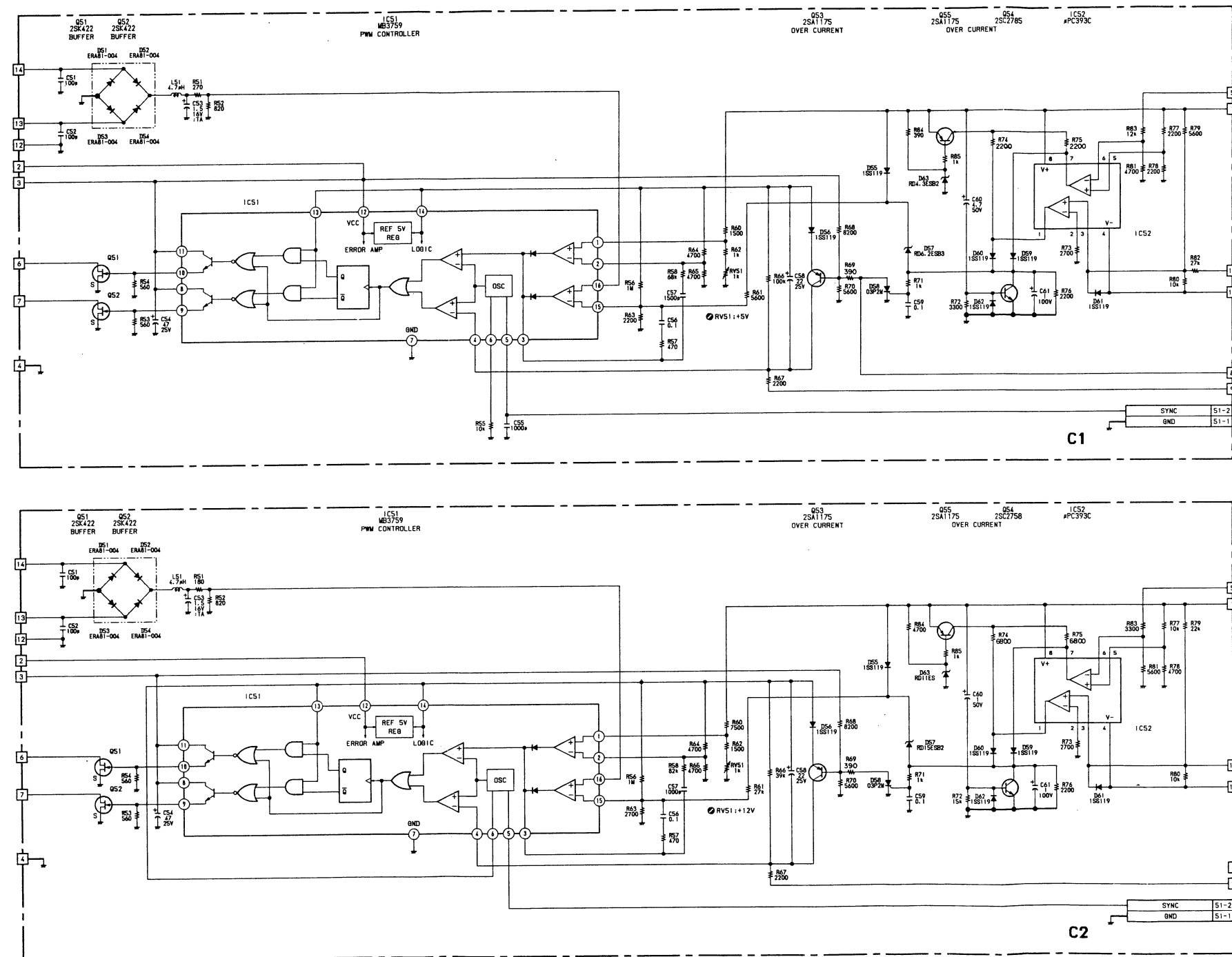
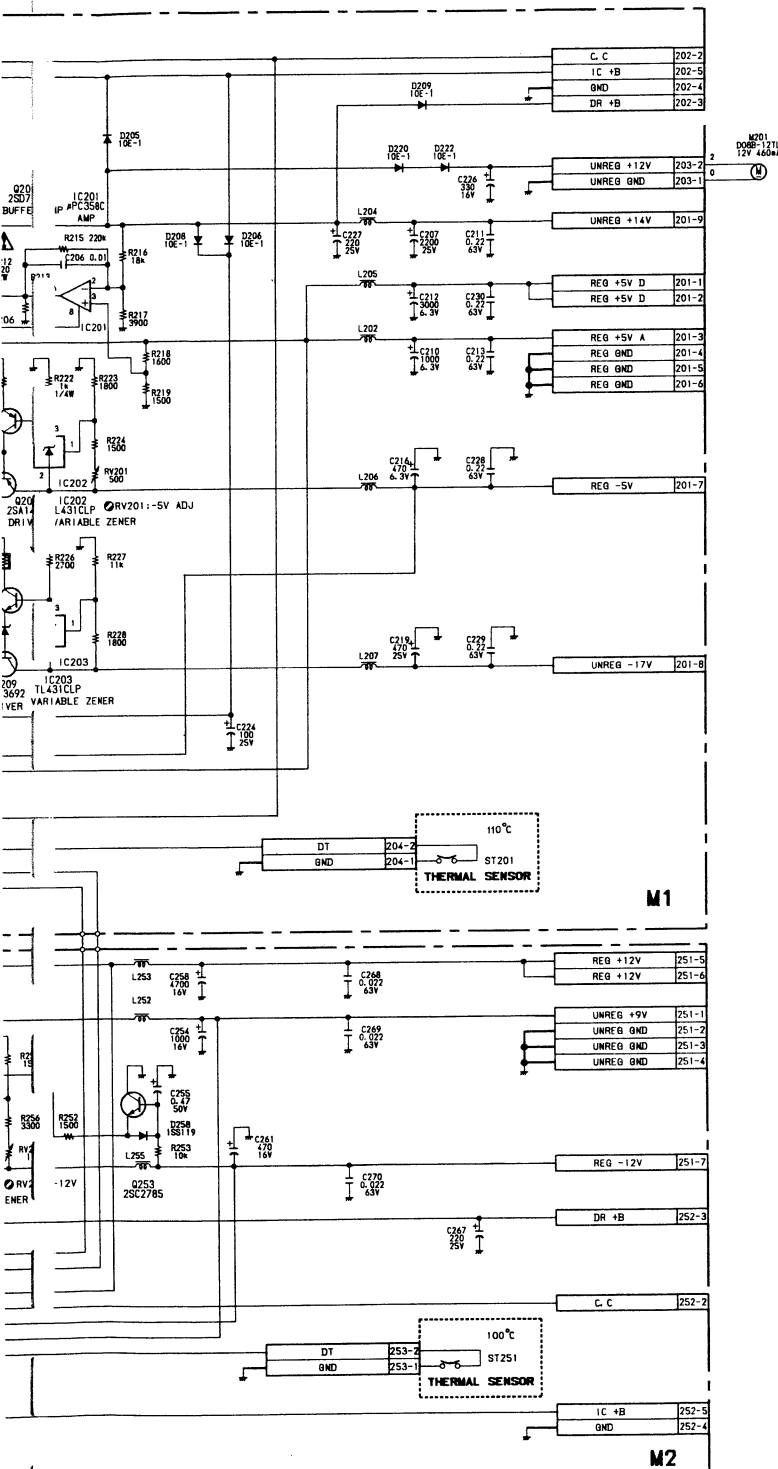
NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	AC-81 → AC-96	S/N 10192 ~



## NOTE:

The shaded and  $\Delta$ -marked components are critical to safety.  
Replace only with same components as specified.

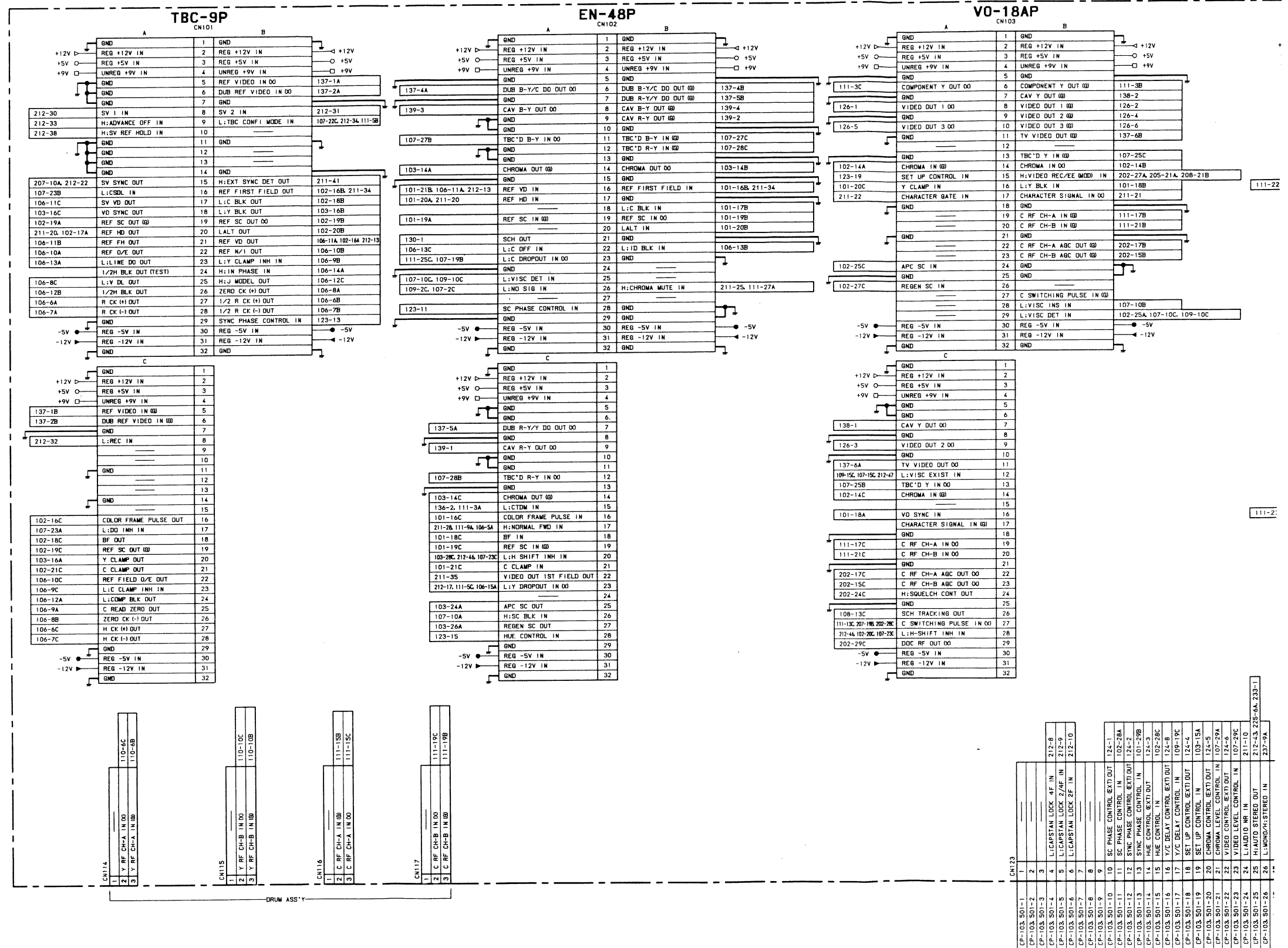


UR-21B

1-413-307-24  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

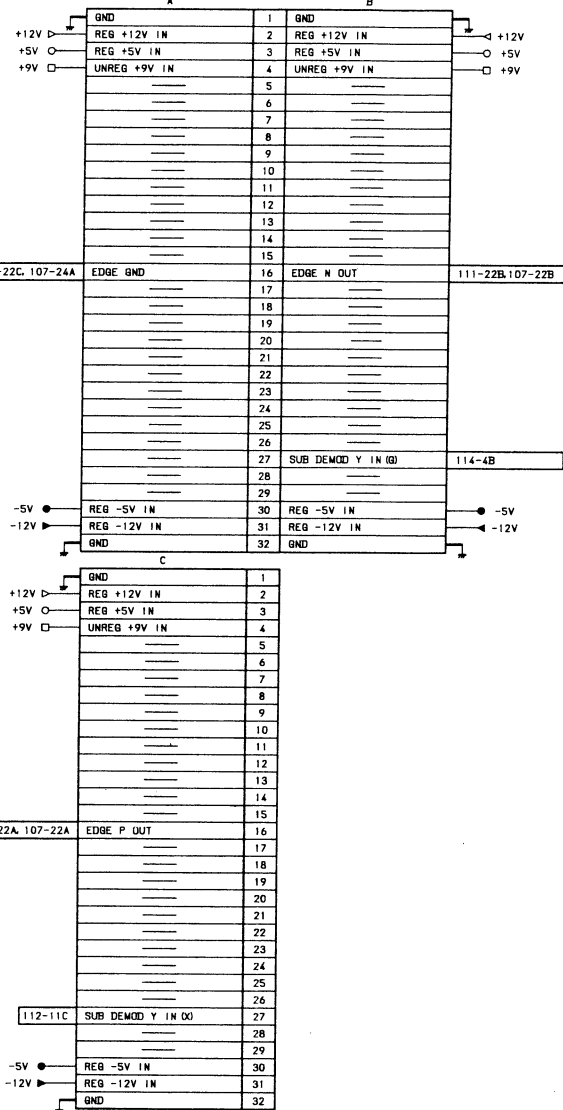
## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	DEC-39A → DEC-46AP	S/N 10670 ~



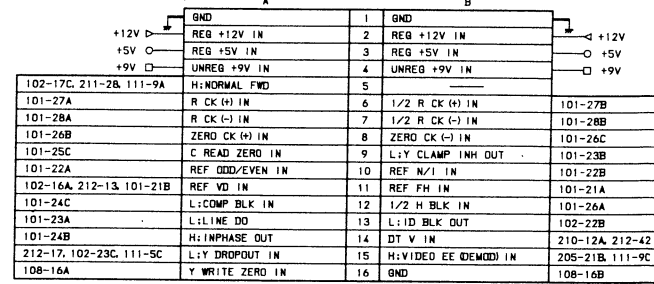
## \*1 DEC-46AP

CN105

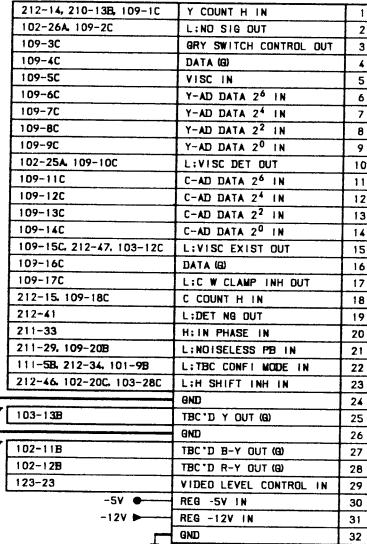
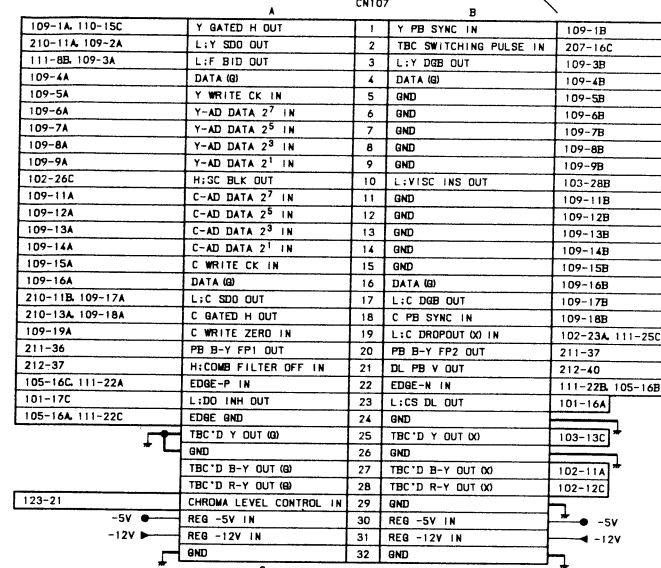
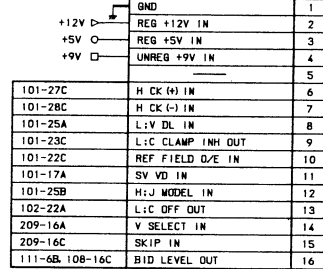


## TBC-8P

CN106

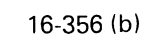


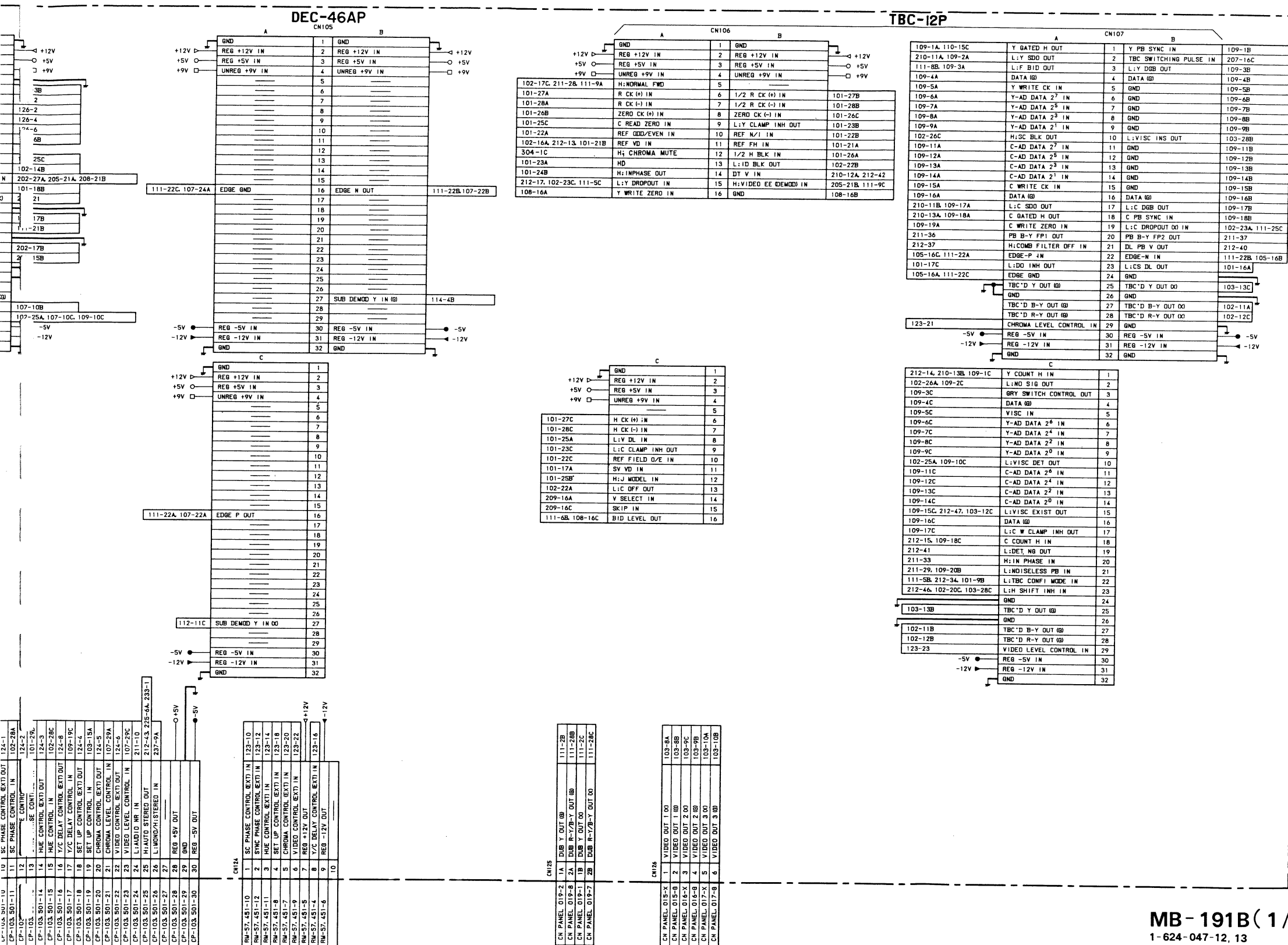
CN107



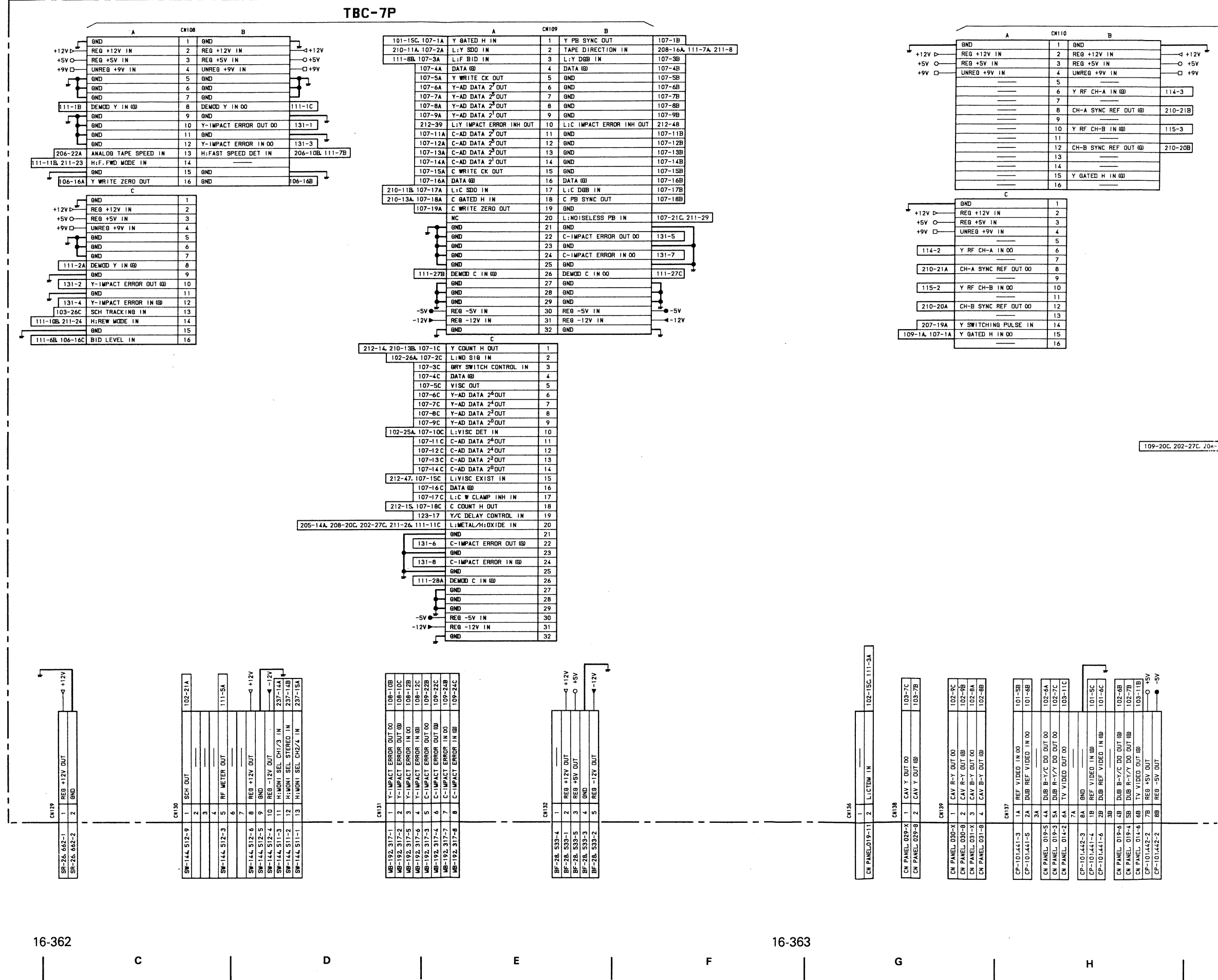
MB-191B(1/4)

1-624-047-11  
BVW-65P

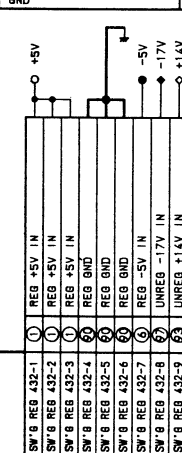
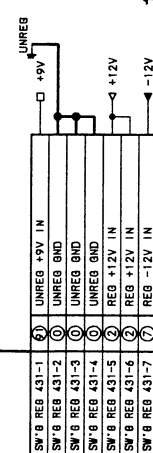
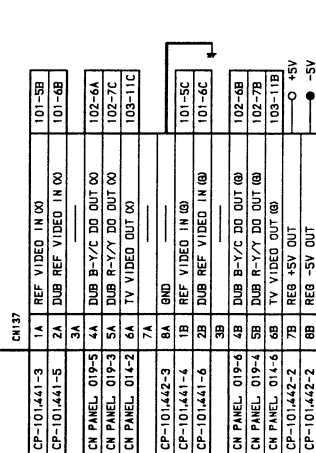
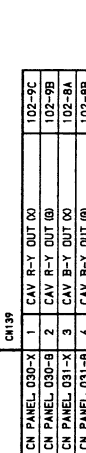
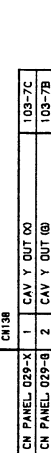
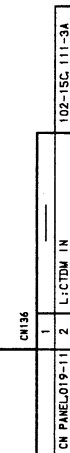
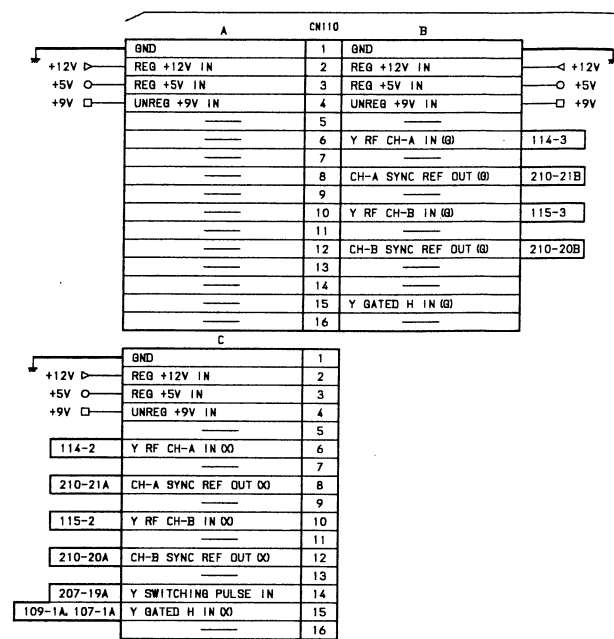
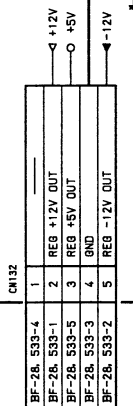
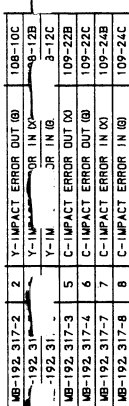
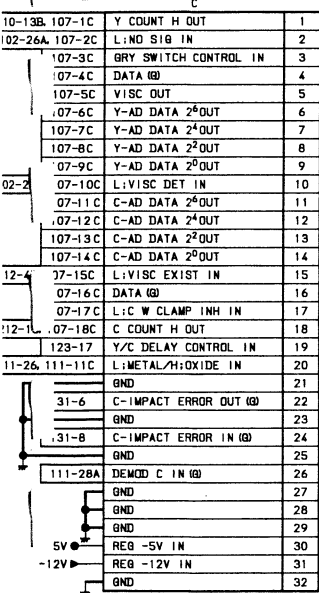
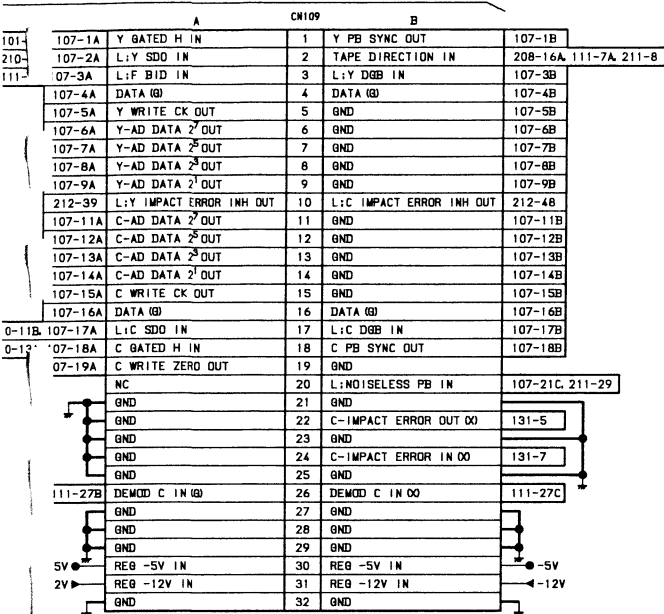




MB-191B (2/4); MOTHER BOARD



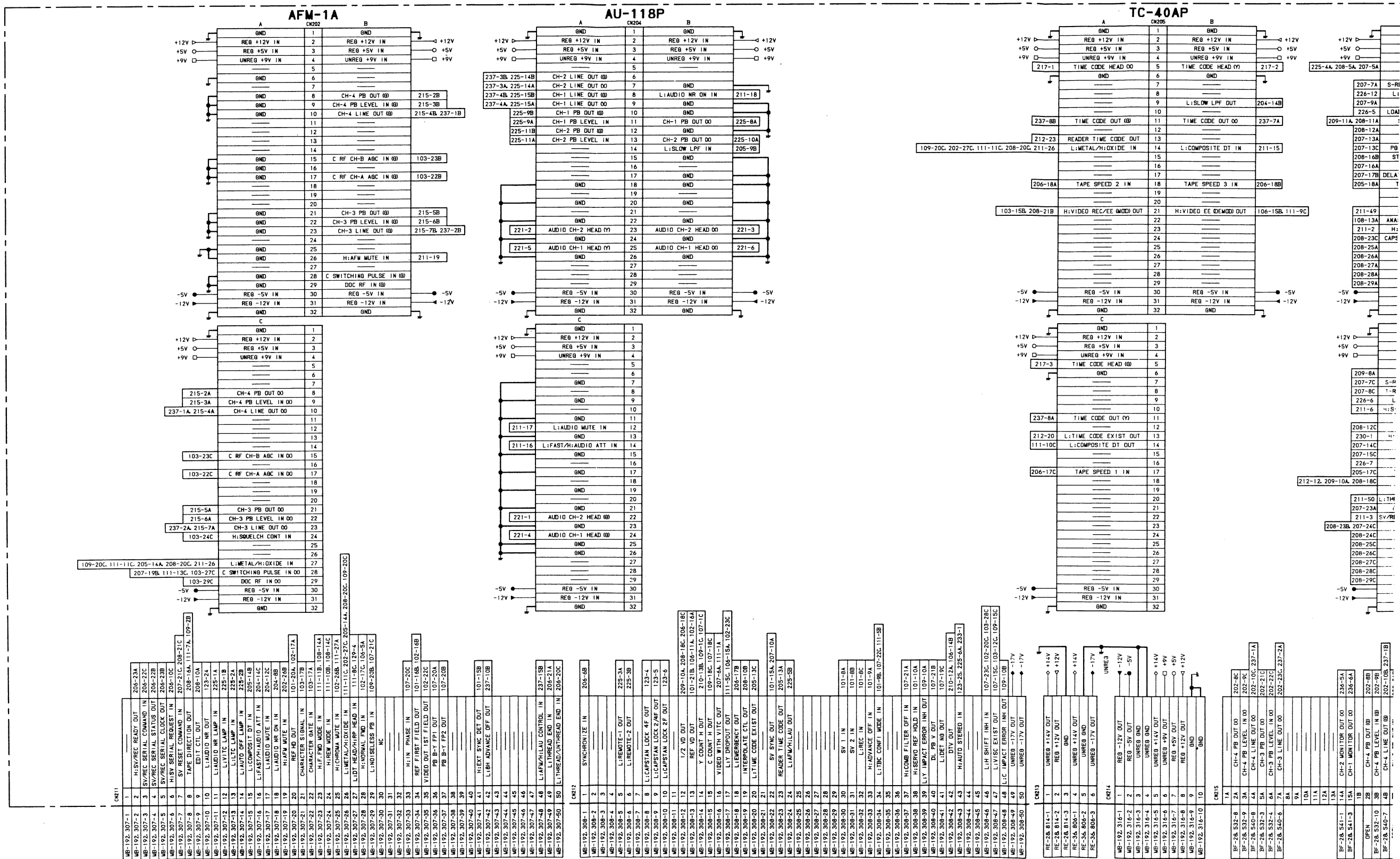




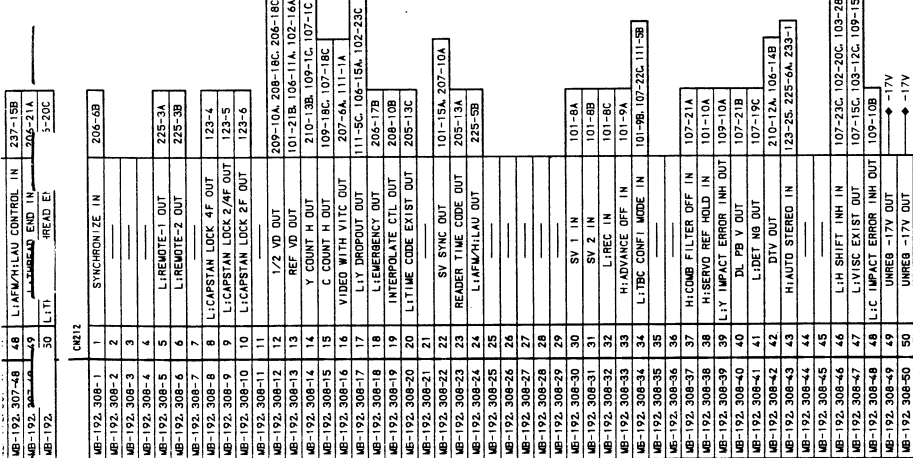
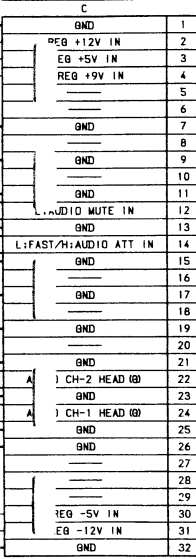
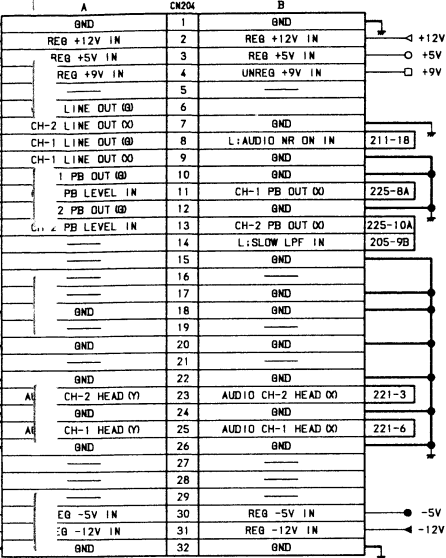
MB-191B (2/4)

MB-191B (2/4)  
1-624-047-11, 12, 13  
BVW-65P

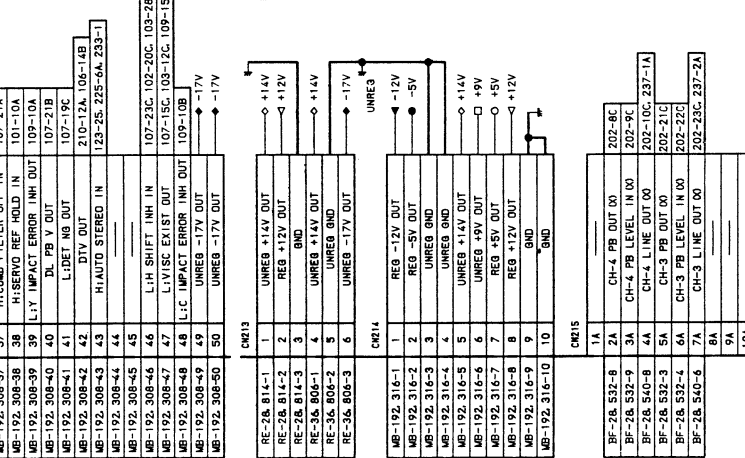
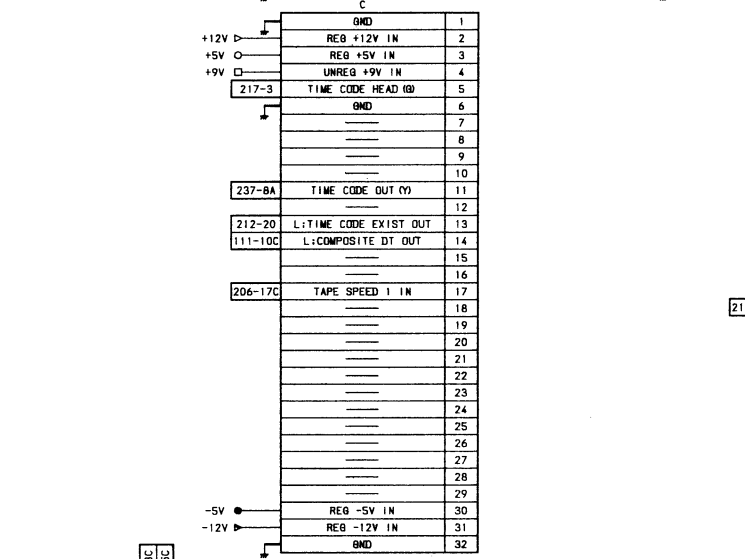
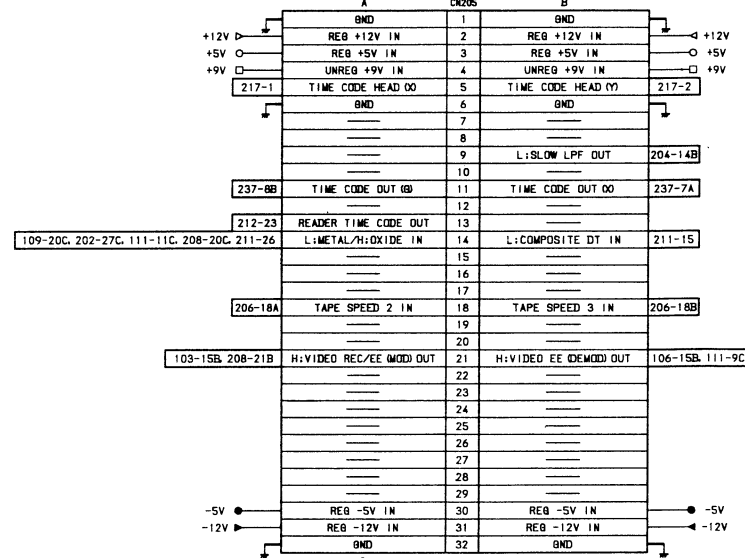
## MB-191B (3/4); MOTHER BOARD



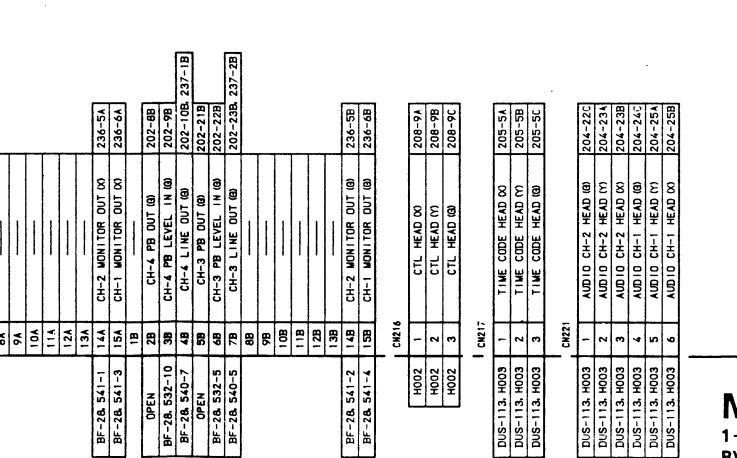
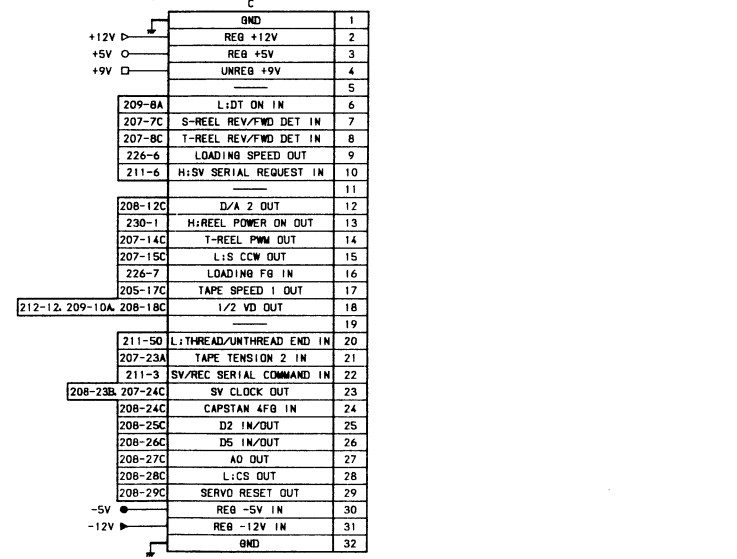
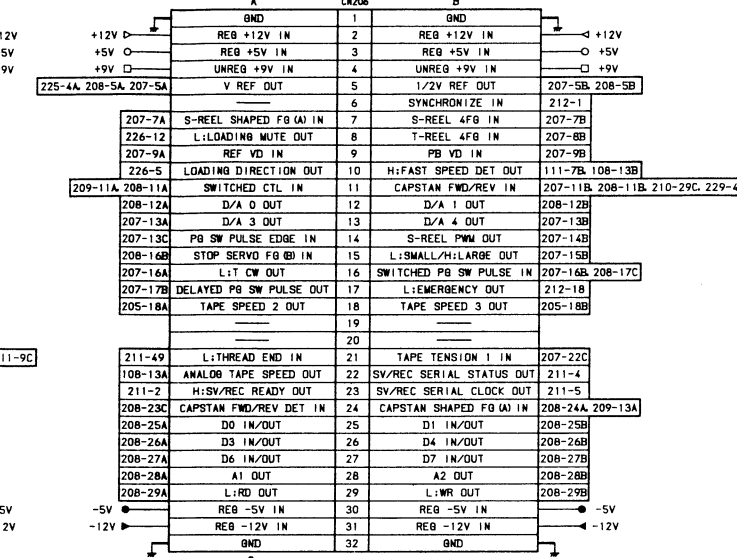
## AU-118P



## TC-40AP



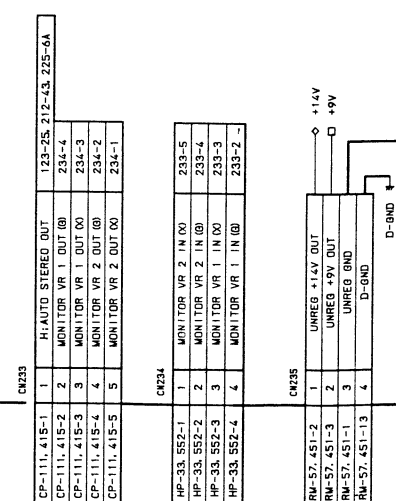
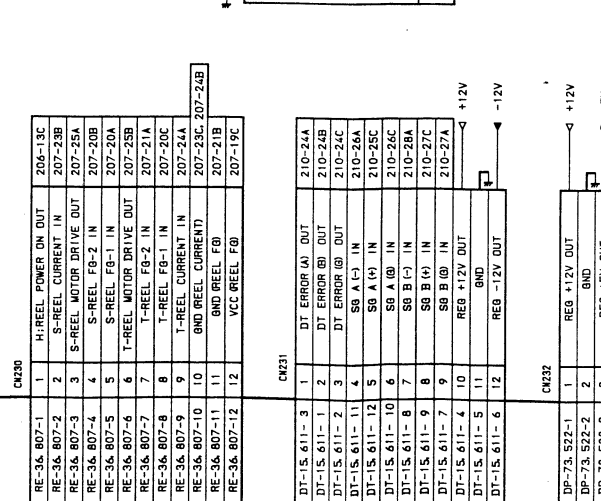
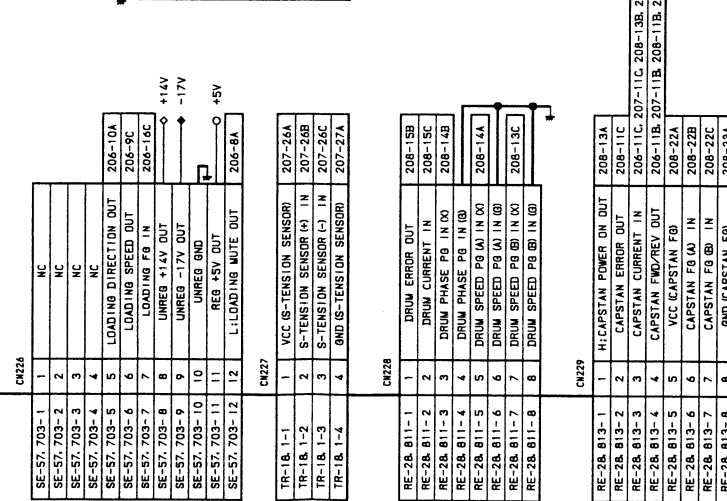
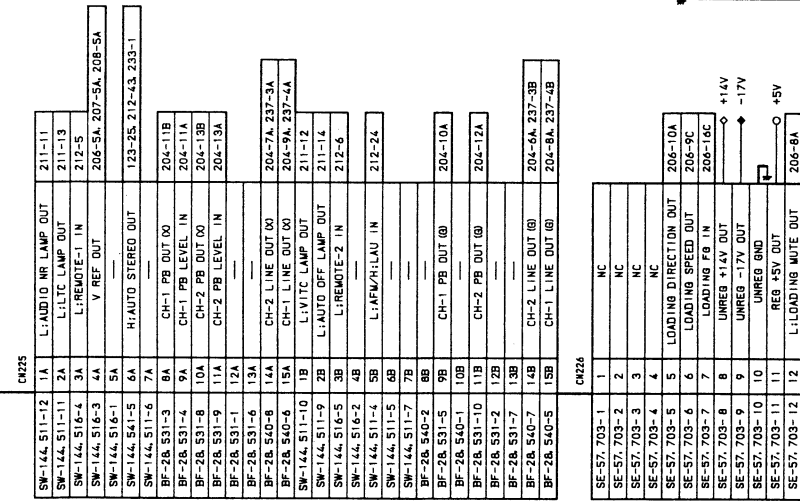
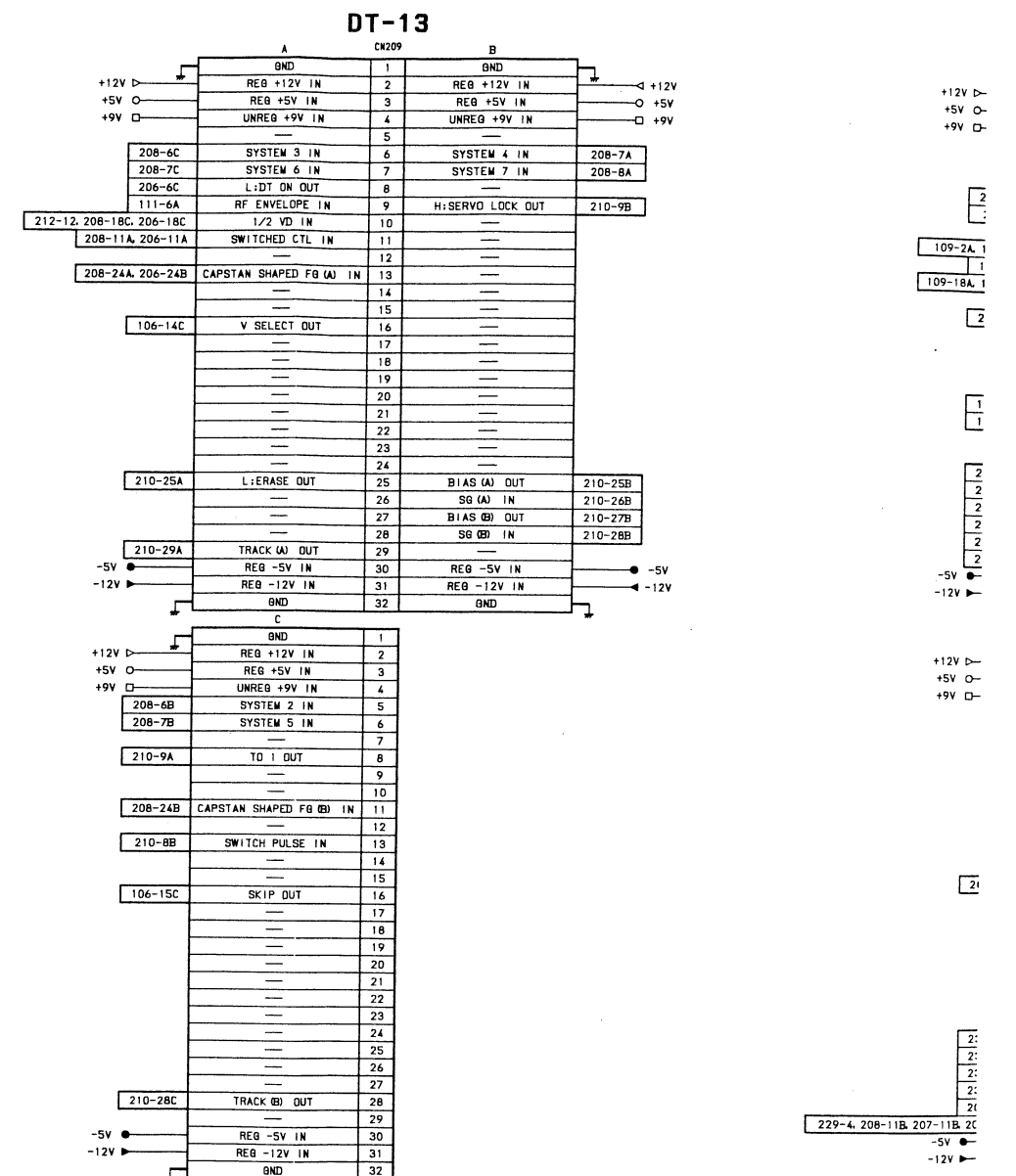
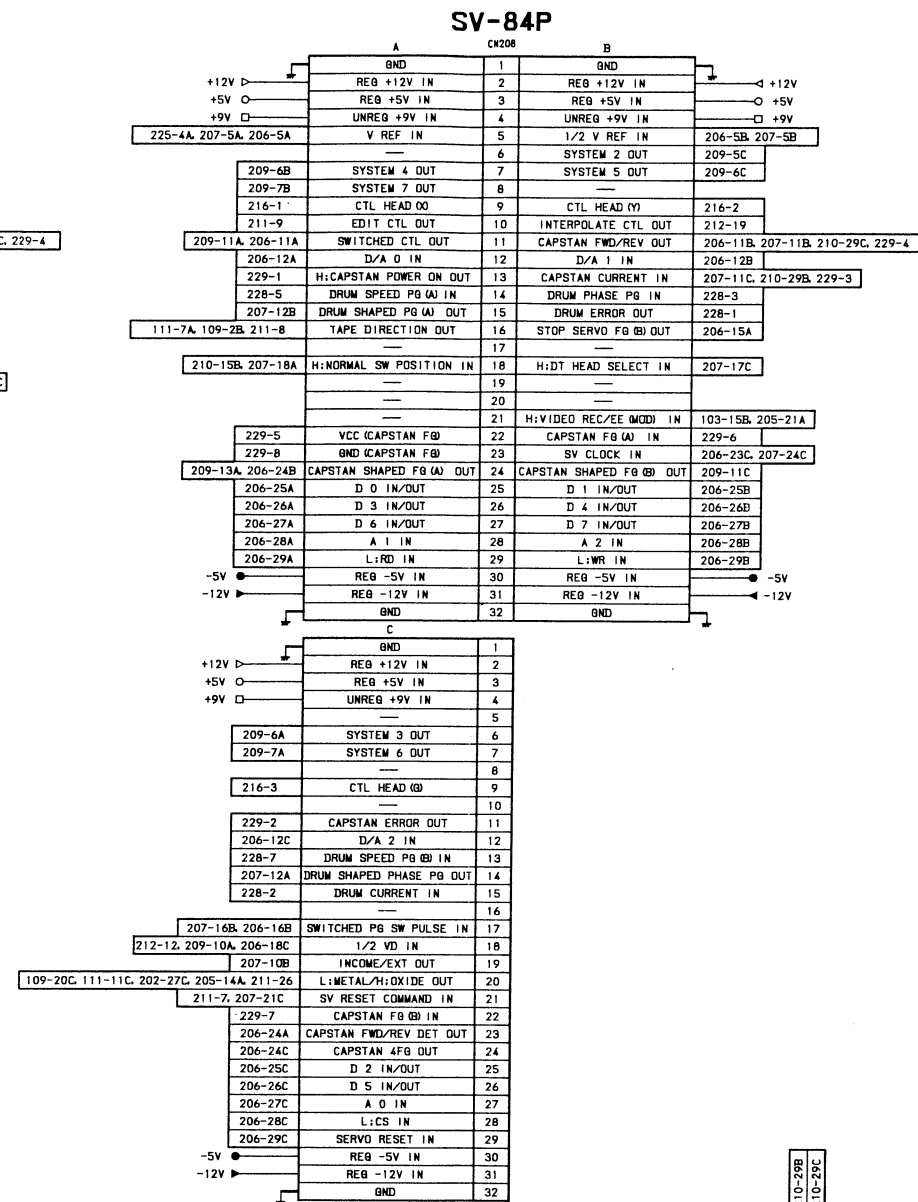
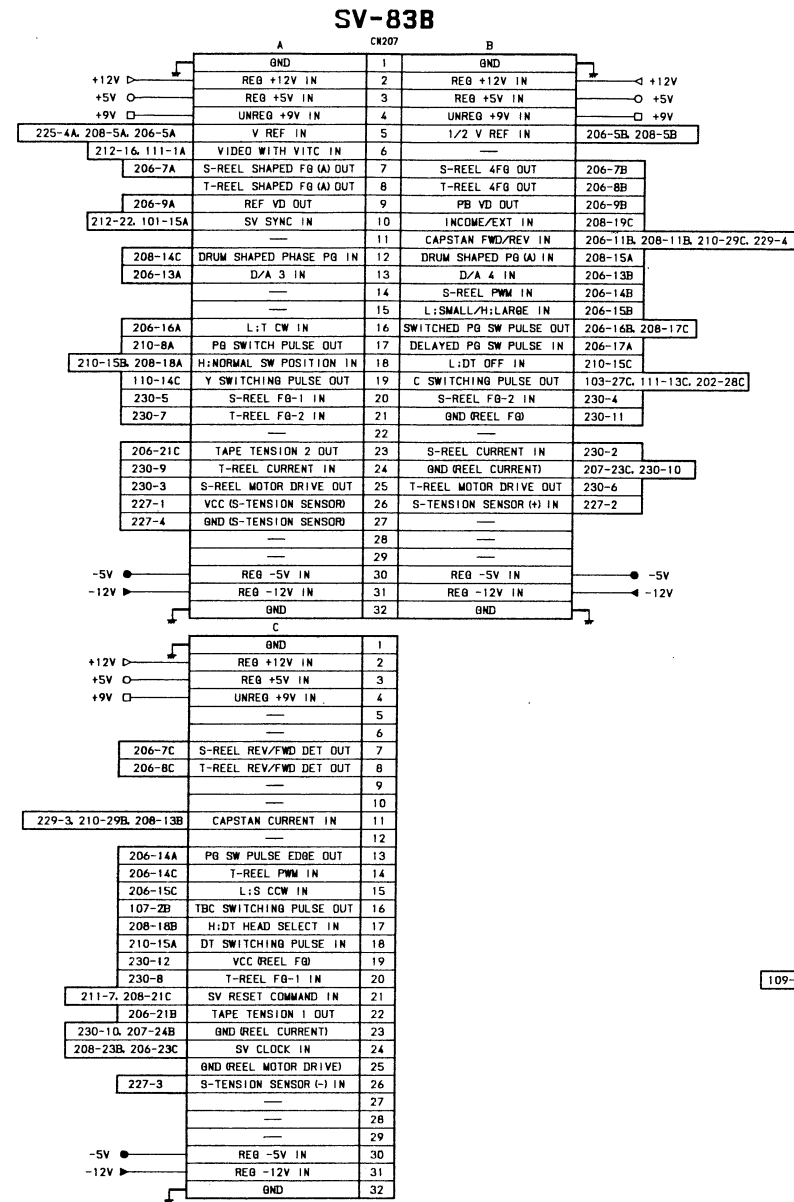
## SV-82A

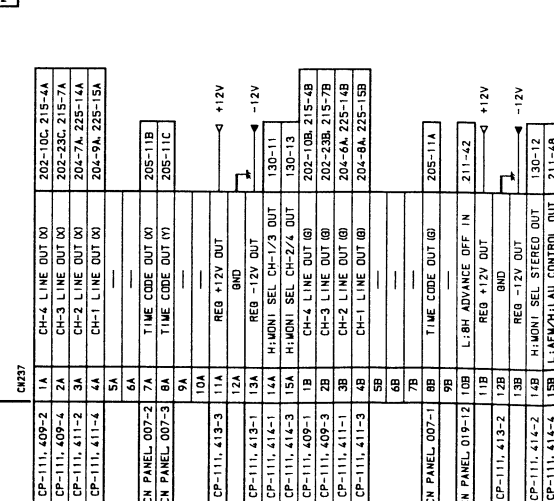
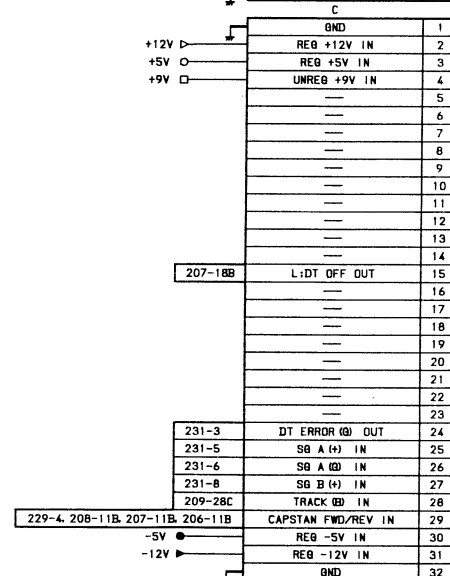
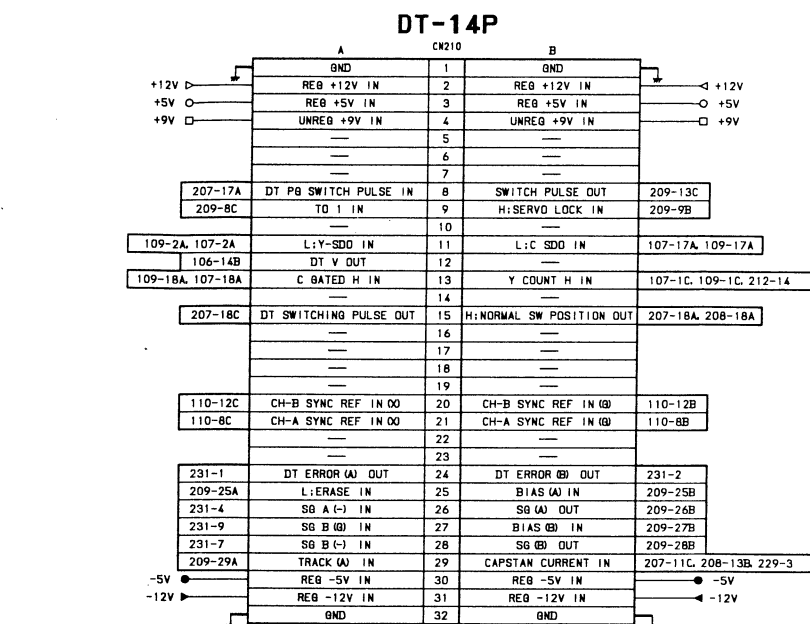


## MB-191B (3/4)

1-624-047-11, 12, 13  
BVW-65P

MB-191B (4/4) ; MOTHER BOARD

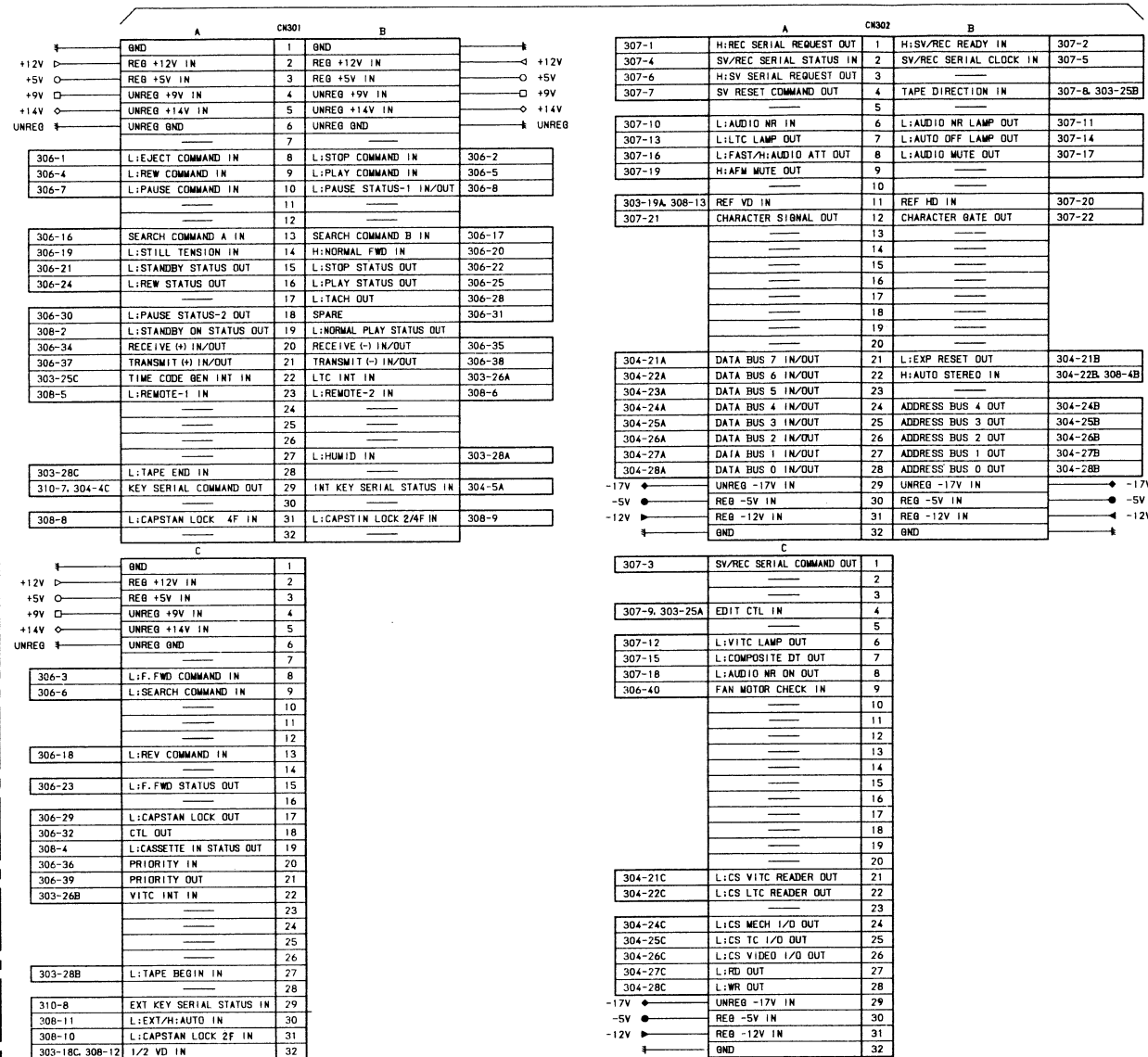




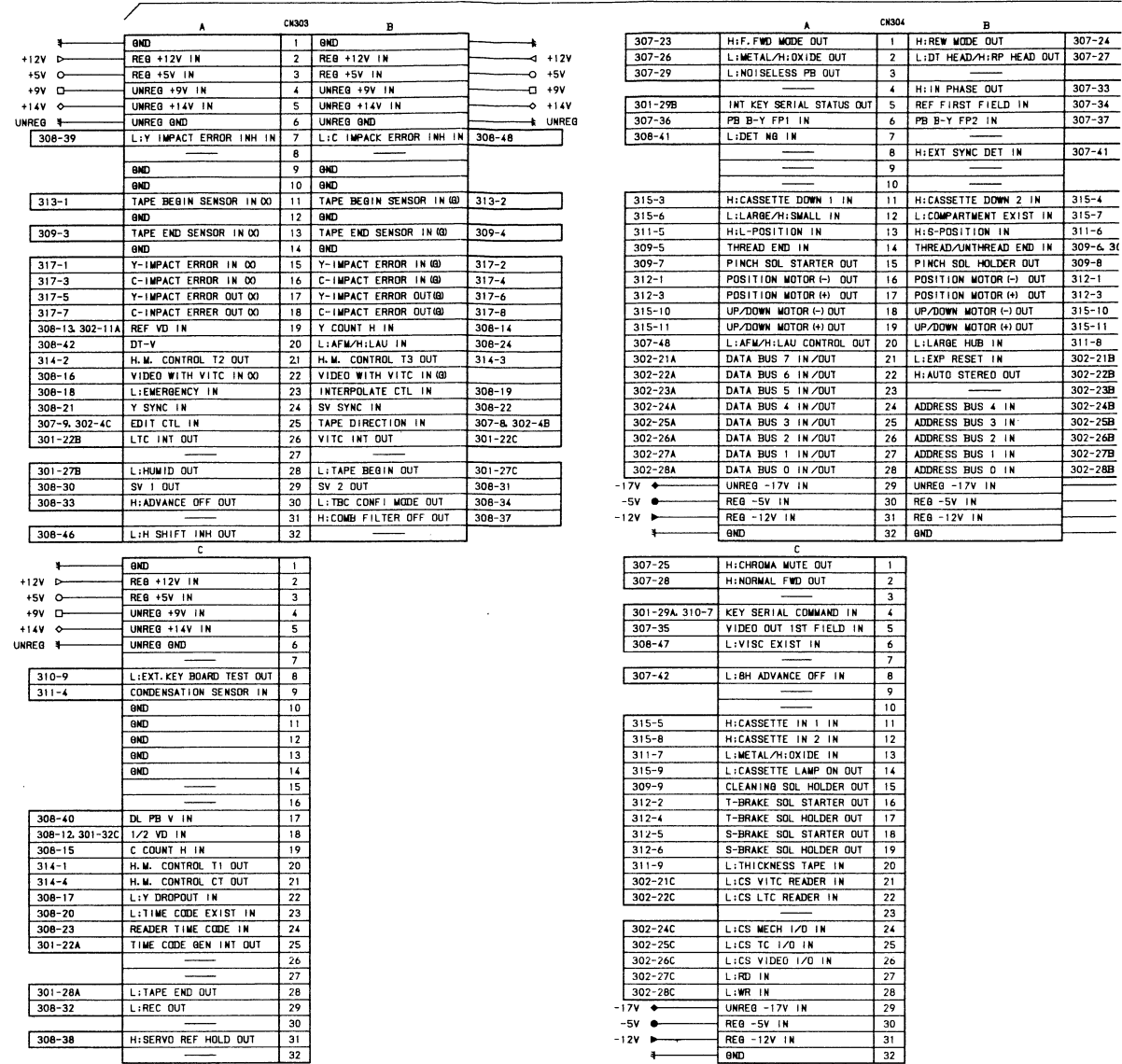


## MB-192; MOTHER BOARD

SY-61A

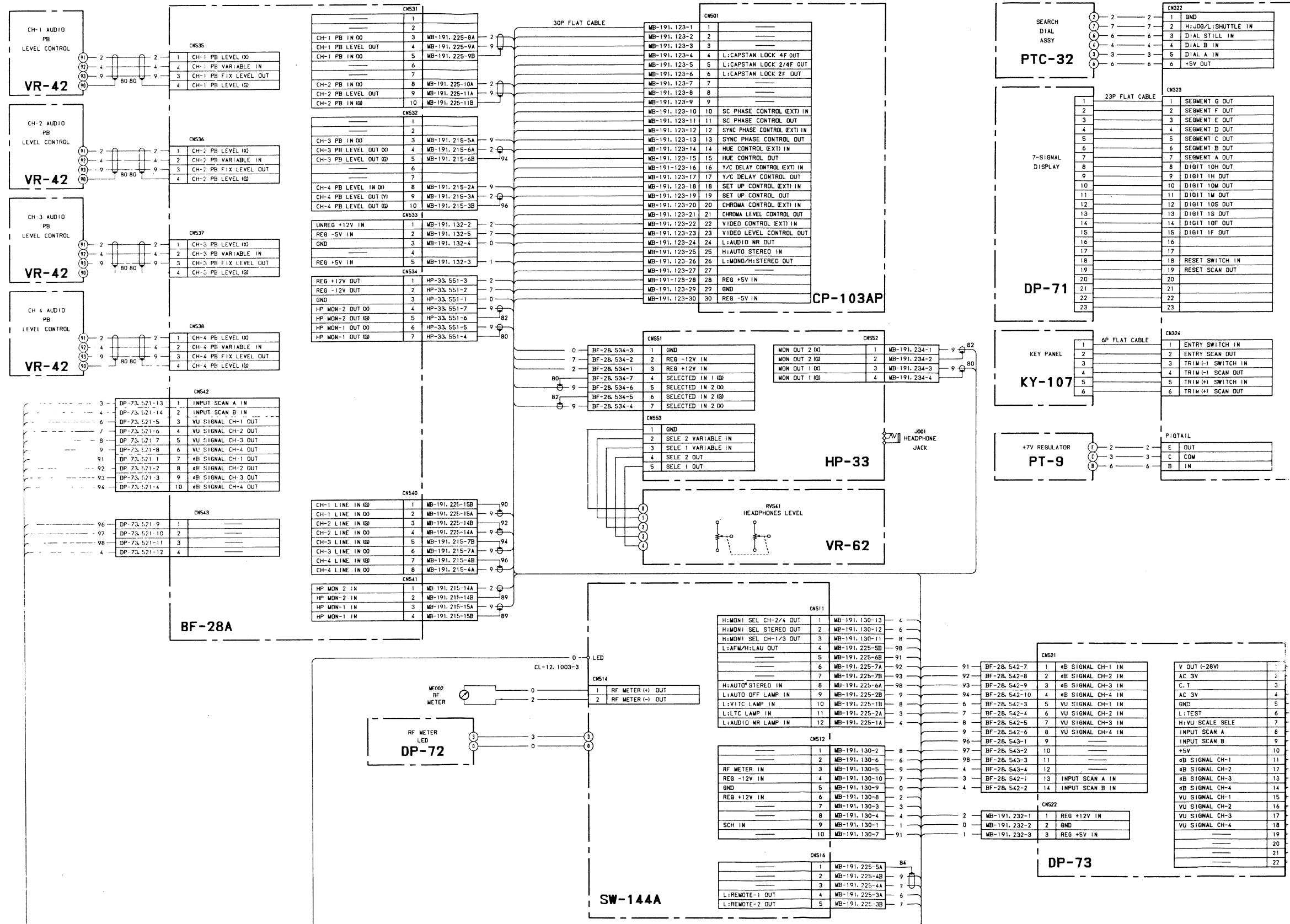


SY-64AP

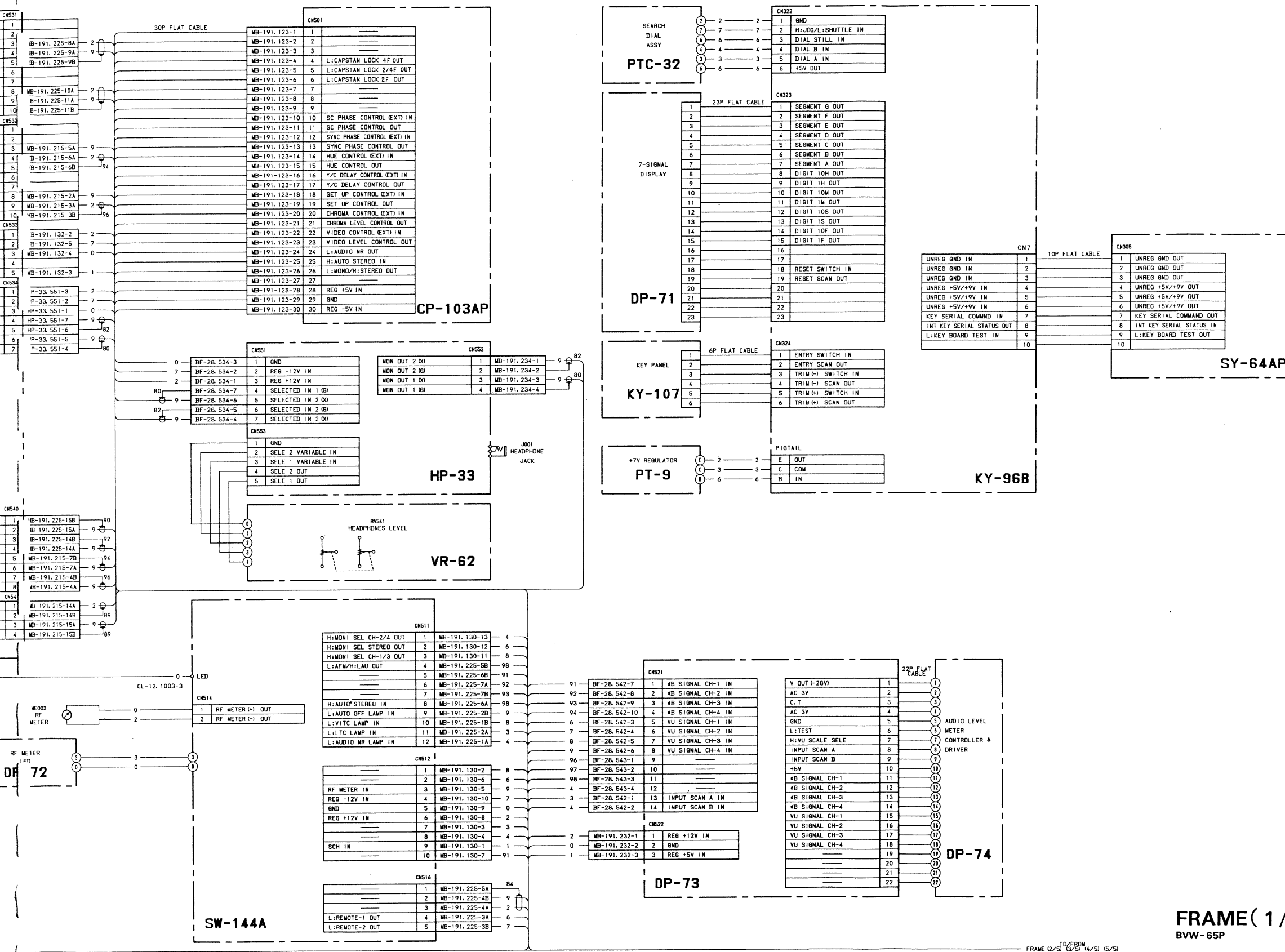


## SY-64AP





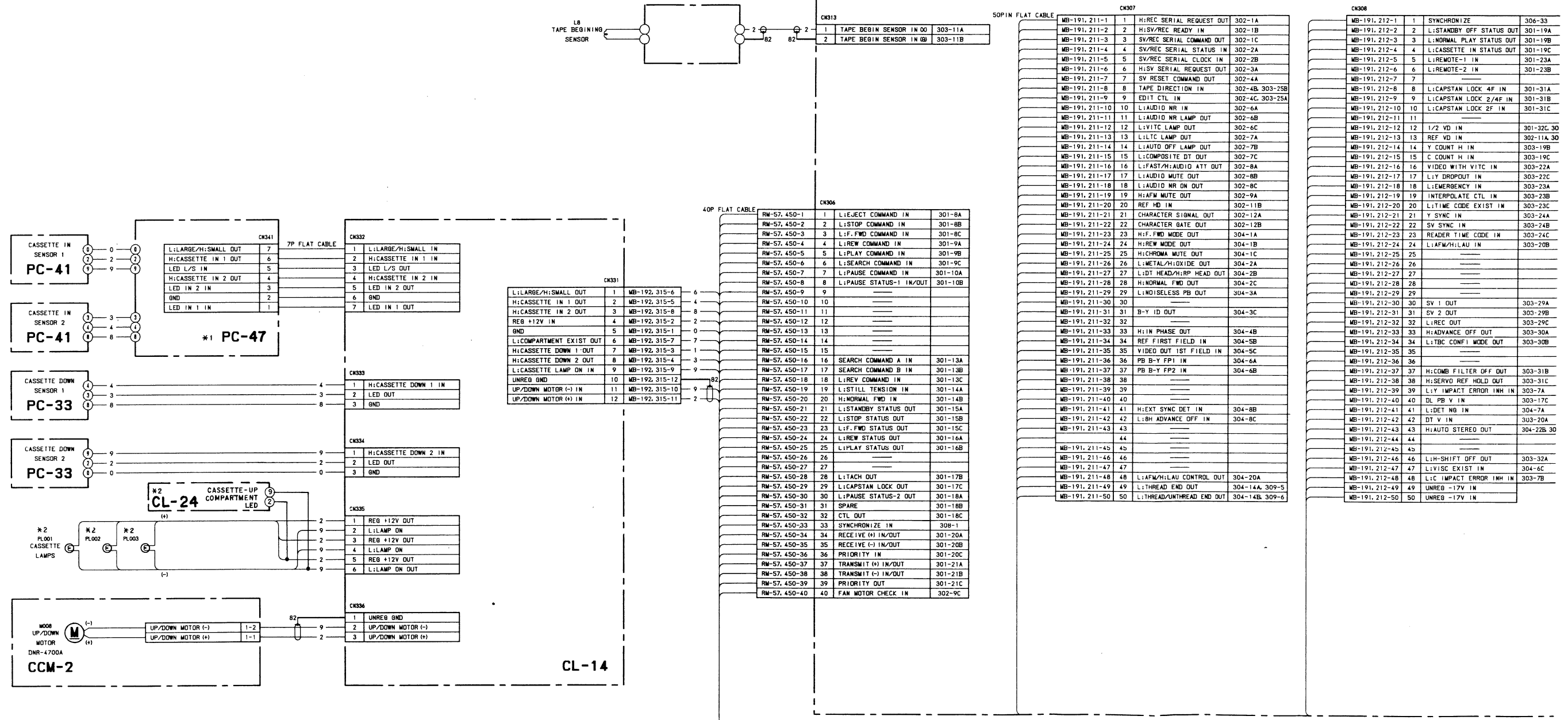
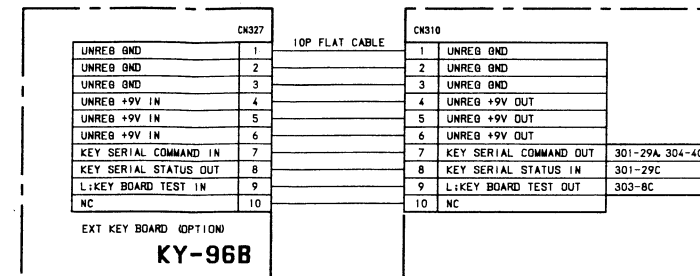




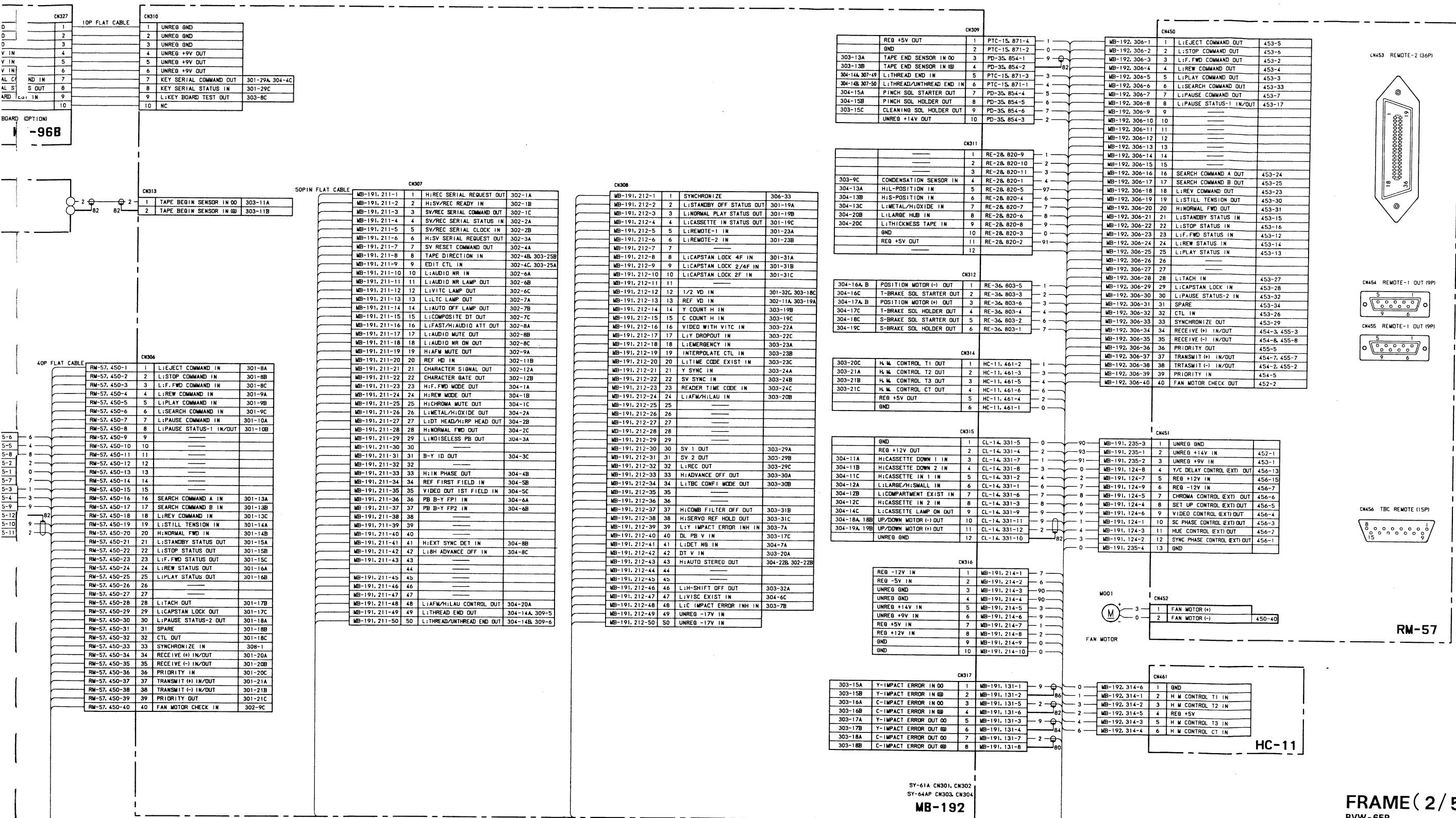
## FRAME (2/5)

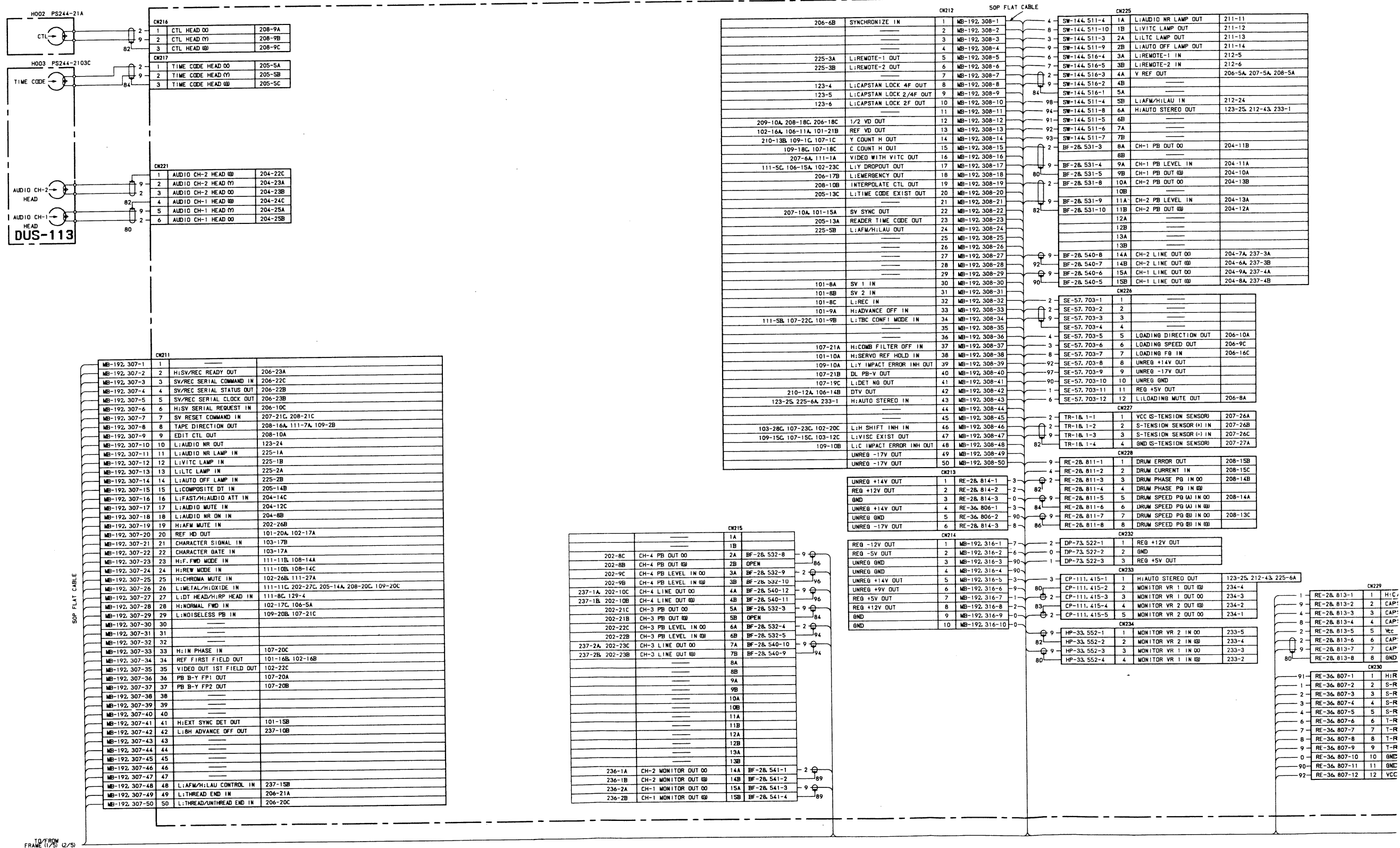
## NOTE

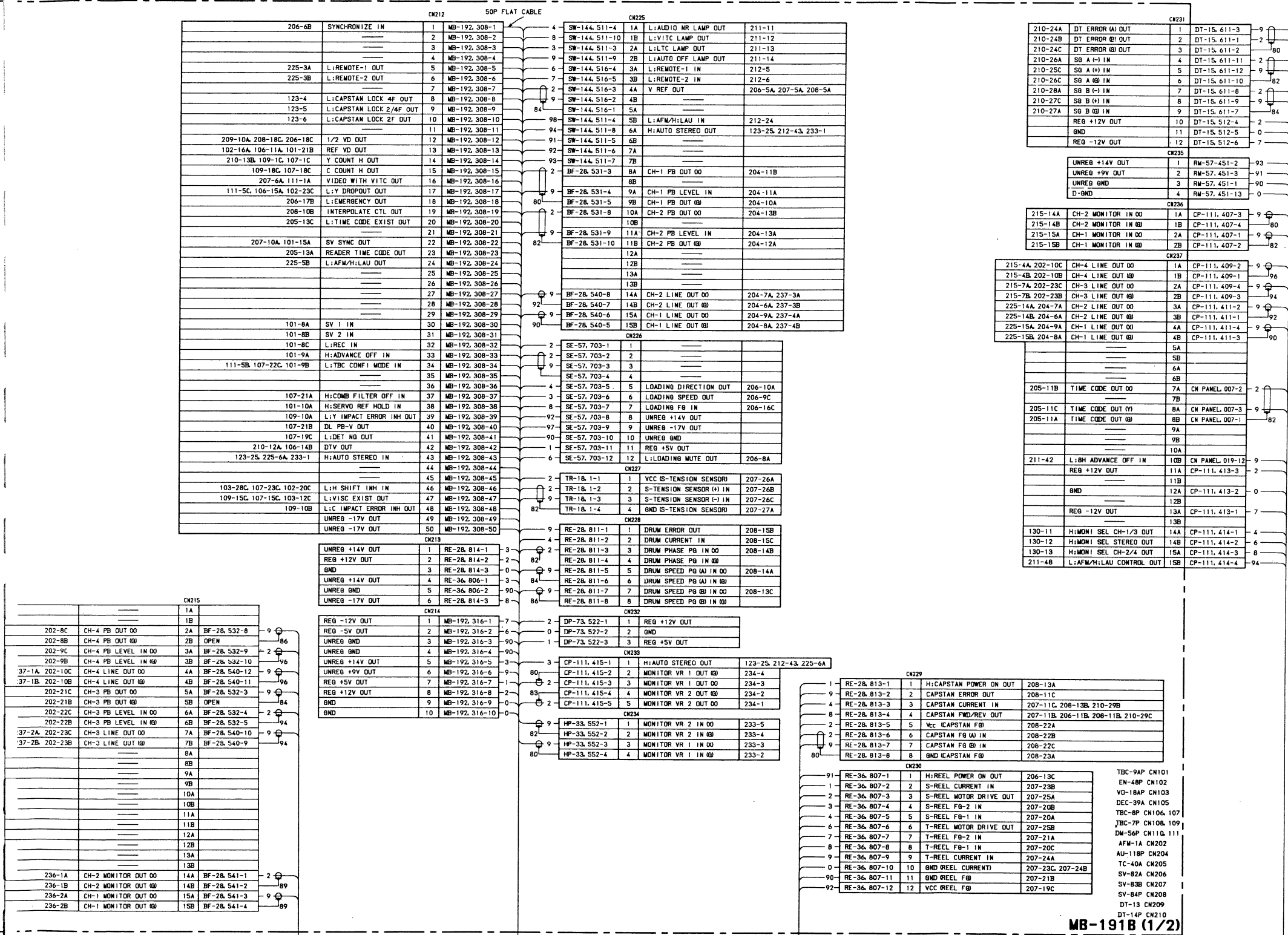
MARK	CHANGE INFORMATION	SERIAL NO.
*1	PC-32 → PC-47	S/N 10192 ~
*2	DELETED PL001, PL002, PL003 ADDED CL-24	S/N 12112 ~



TO/FROM FRAME (1/5)

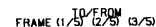






MB-191B (1/2)

FRAME (3/5)  
BVW-65P







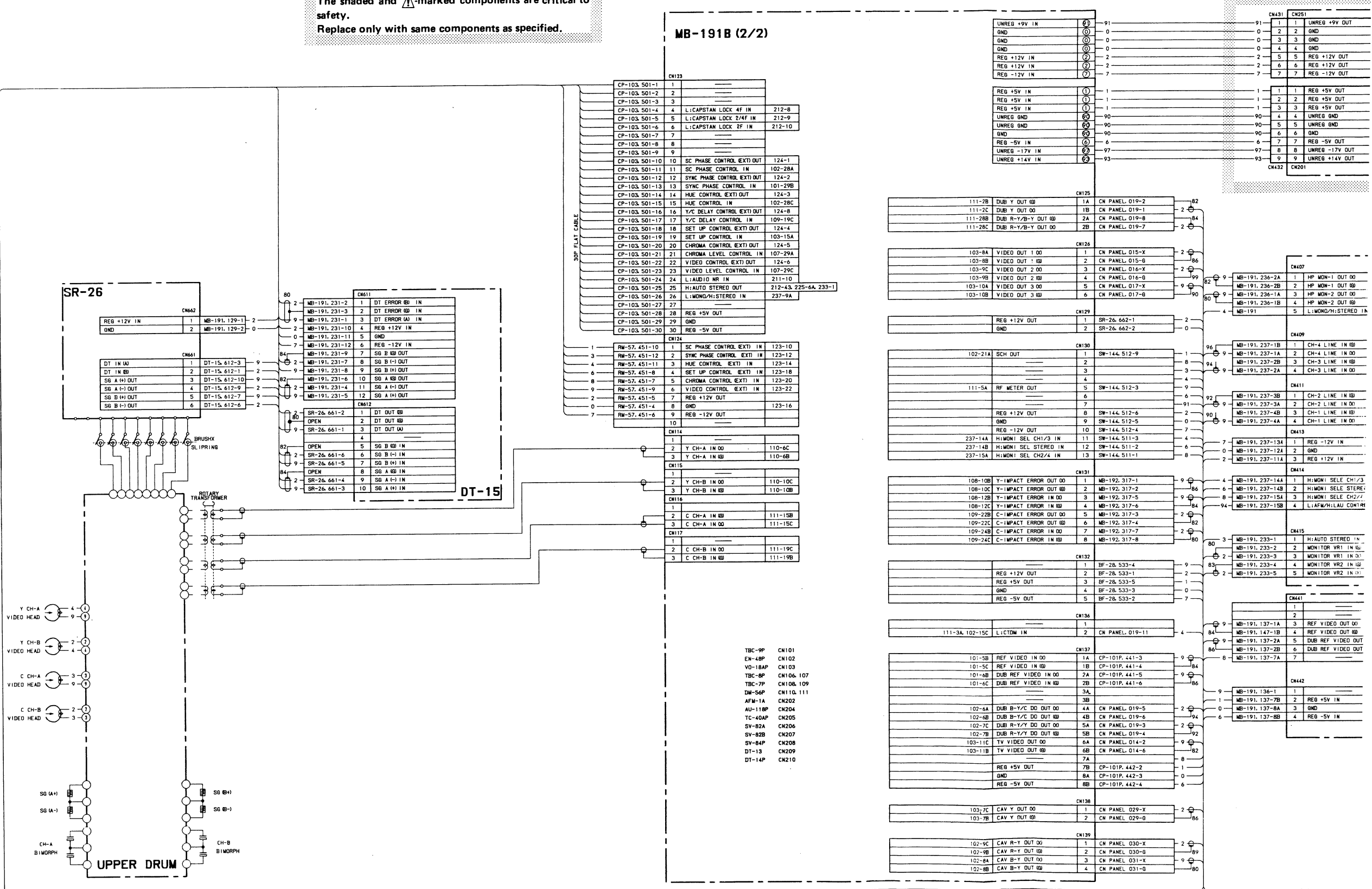
FRAME (5/5)

NOTE

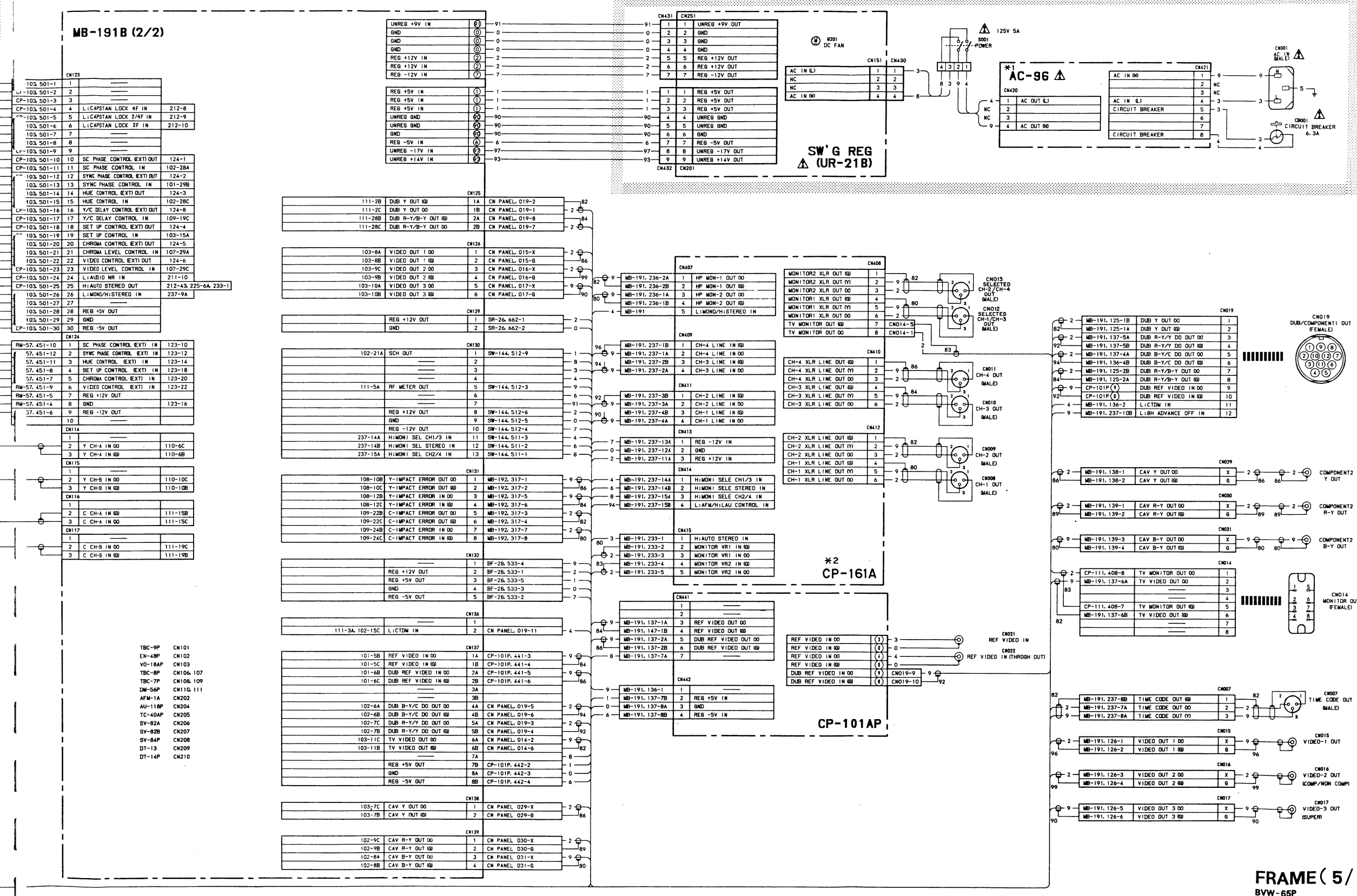
MARK	CHANGE INFORMATION	SERIAL NO.
*1	AC-81 → AC-96	S/N 10192 ~
*2	CP-111 → CP-161A	S/N 12855 ~

NOTE:

The shaded and  $\Delta$ -marked components are critical to safety.  
Replace only with same components as specified.







**SONY**

VIDEOCASSETTE PLAYER

**BVW-65P**



**BETACAM SP**™

MAINTENANCE MANUAL

Volume 2 3rd Edition (Revised 10)

Serial No. 10061 and Higher

EBU N-10 LEVEL

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## SECTION 17

### PRINTED WIRING BOARDS

#### CIRCUIT CONFIGURATION

The circuit information is provided below.

System	Board	Circuit function
VIDEO	DM-56P	Y/C Demodulator
	DUS-259	Metal/Oxide LPF Switch
	DUS-269	C RF Phase EQ.
	DUS-288	DO RF EQ.
	*3	
	EQ-26 *3	RF EQ.
	EQ-28 *3	RF EQ.
	TBC-7P *6	Time Base Corrector
	SW-261	Metal/Oxide Y/C Delay
	*2	Adjust Volume
	TBC-7D *7	Time Base Corrector
	TBC-8P *6	Time Base Corrector
	NR-25	Y Digital Noise
	*6	Reduction
	TBC-12P	Time Base Corrector
	*7	
	NR-32	Y Digital Noise
	*7	Reduction, Read Clock Generator
	TBC-9P	Time Base Corrector
	EN-48P	C Encoder
AUDIO	VO-18AP	Video Output
	DUS-270	Squelch Buffer
	DEC-39A	Edge Detector
	*4	
	DEC-46AP	Edge Detector
	*5	
	CP-103AP	Sub Control Panel
	CP-101AP	REF Video Input
	AU-118P	LNG Audio Head Amplifier
	AFM-1A	AFM Audio Demodulator
	FL-61	Low-Pass Filter
	BF-28A	Audio Buffer/Level Detector
	VR-42	Audio PB Volume
	CP-111	Audio Output
	CP-161A	Amplifier/Driver
	CP-113	Audio Balanced Amplifier

System	Board	Circuit function
AUDIO	HP-33	Headphones Amplifier/ Jack
	VR-62	Headphones Level Volume
	DP-74	Audio Level Meter
	DP-73	DC-AC/DC Converter
	SW-144A	Select Switch/Display
	DP-72	RF Meter LED
SERVO	SV-82A	Microcomputer Servo
	SV-83B	Reel Servo
	SV-84P	Capstan/Drum Servo
	RE-28	Capstan/Drum Motor Driver
	PTC-20	Cassette Detector (Tape Thickness, Reel Hub Diameter, Metal/Oxide)
	PTC-36	Cassette Detector (Tape Thickness, Reel Hub Diameter, Metal/Oxide)
	PTC-21	Reel Table Position Detector
	DR-56	Drum Error Amplifier, Capstan/Reel Motor Driver
	RE-36	Reel Motor Driver
	RM-40	Reel Motor
	DE-15	Reel Motor FG
	SE-57	Threading Motor Control
	PTC-31	Threading Motor FG
	TR-18	Tape Tension Sensor
	DT-13	Dynamic Tracking
	DT-14P	Dynamic Tracking
	DUS-282	Strain Gage Buffer
	*1	
	DT-15	Dynamic Tracking

System	Board	Circuit function
SYSTEM CONTROL	SY-61A	System Control
	SY-64AP	Time Code Reader
	PD-35	Pinch/Cleaning Solenoid
	PTC-15	Thread/Unthread End Sensor
	RM-57	Remote Connector
	CL-14	Cassette-up Compartment
	CL-24	Cassette-up Compartment
	*8	LED
	PC-32	Large/Small Cassette
	*2	Detector
	PC-47	Large/Small Cassette
	*3	Detector
	PC-33	Cassette Down Detector
	PC-41	Cassette In Detector
	CCM-2	Up/Down Motor
	HC-11	Hours Meter
	KY-96B	Keyboard
	KY-107	Keyboard
	PTC-32	Search Dial
	DP-71A	Time Counter Display
OTHERS	PT-9	Power Transistor
	TC-40AP	LTC PB Amplifier
	AC-81 *2	Relay Board of AC Inlet
	AC-96 *3	Relay Board of AC Inlet
	M1	Switching Regulator
	M2	Switching Regulator
	C1	Switching Regulator
	C2	Switching Regulator
	MB-191B	Mother Board
	MB-192	Mother Board
	EX-116	Extension Board
	EX-134	Extension Board
	EX-151	Extension Board

\*1...Serial No. 10161 and higher

\*2...Serial No. up to 10191

\*3...Serial No. 10192 and higher

\*4...Serial No. up to 10669

\*5...Serial No. 10670 and higher

\*6...Serial No. up to 10769

\*7...Serial No. 10770 and higher

\*8...Serial No. 12112 and higher

DM-56P; Y/C DEMODULATOR  
DUS-259; METAL/OXIDE LPF SWITCH  
DUS-269; C RF PHASE EQUALIZER

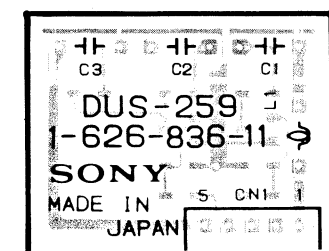
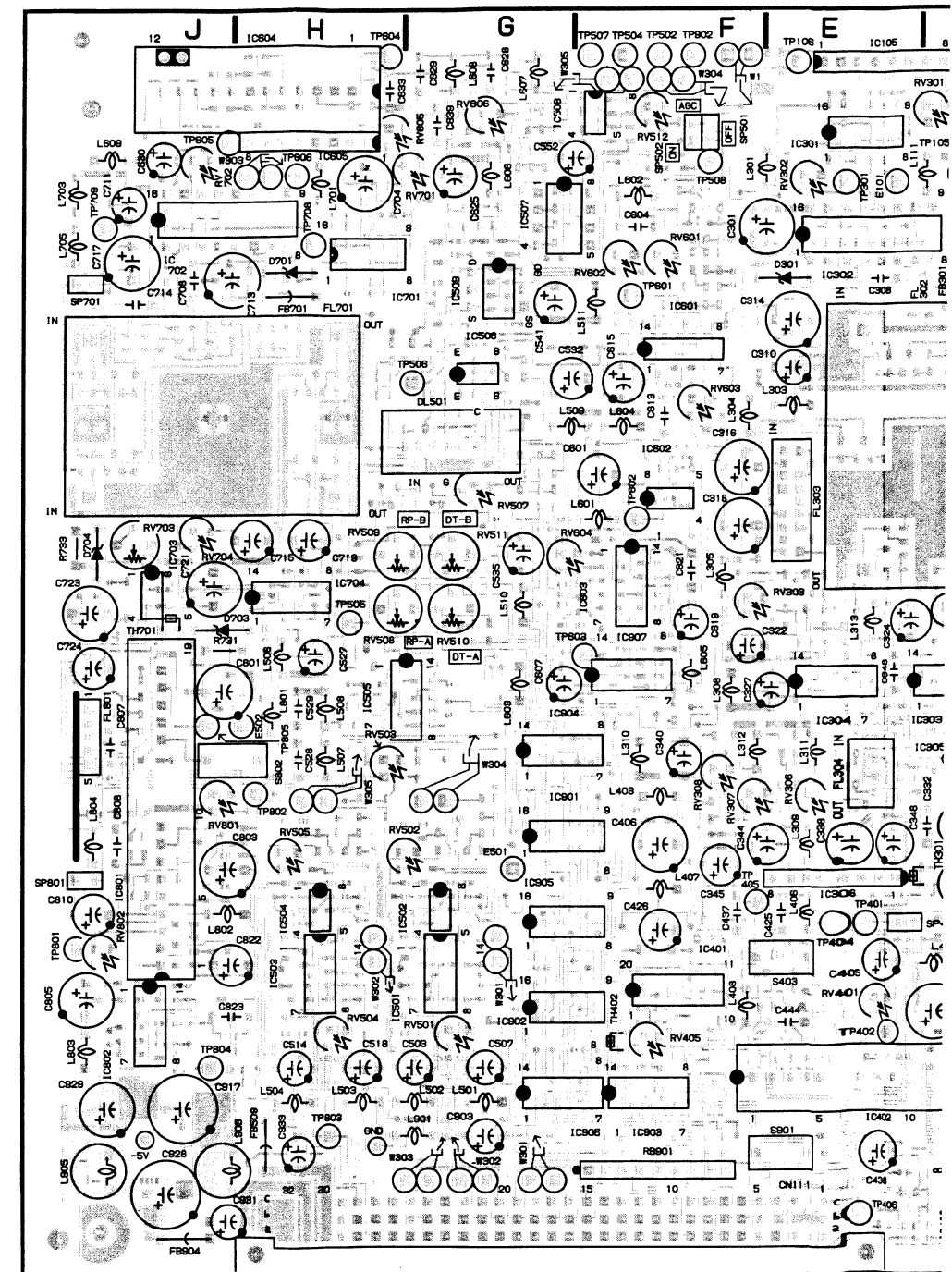
DM-56P (1-622-545-31, 32, 33, 34)

REF. NO.	TYPE	PIN NO.						
		+12V	+9V	+5V	REG +5V	GND	-5V	-12V
IC 1	CX20158			12		5.7.10	1	
IC 2	CX20158			12		5.7.10	1	
IC 3	μPC1663G			6			3	
IC 4	μPC1663G			6			3	
IC 5	CX20158			12		5.7.10	1	
IC 102	SN16913P	8				4		4
IC 103	NJM4558M	8						
IC 104	HF UNIT			12		1.5.10		
IC 105	CX20061	1				5		
IC 201	NJM1496M							14
IC 202	TL082CPS	8				7	4	
IC 203	SN75107AN			14			13	
IC 204	TL082CPS	8				8	4	
IC 205	TC4053BF			16		7		
IC 206	SN74LS06NS			14		2.3.9		
IC 207	BX1098L		12			10		
IC 301	MC10H116M				1.16	8		
IC 302	MC10198L				1.16	8		
IC 303	CX20158			12		5.7.10	1	
IC 304	CX20158			12		5.7.10	1	
IC 305	μPC1663G	*				5		*
IC 306	CX20061	1				6		
IC 401	CXA1039M		1			9.15		
IC 402	SBX1540-31		19	4		16.18	2	
IC 403	CX20158			12		5.7.10	1	
IC 501	CX20158			12		5.7.10	1	
IC 502	μPC1663G			6			3	
IC 503	CX20158			12		5.7.10	1	
IC 504	μPC1663G			6			3	
IC 505	CX20158			12		5.7.10	1	
IC 507	SN16913P	8		8		4		4
IC 508	NJM4558M							
IC 601	NJM1496M	8				7	4	
IC 602	TL082CPS			14				
IC 603	SN75107AN			12		1.5.10	13	
IC 604	HF UNIT					5		
IC 605	CX20061	1				8		
IC 701	MC10H116M				1.16	8		
IC 702	MC10198L				1.16	8		
IC 703	μPC1663G			6			7	
IC 704	CX20158			12		5.7.10		
IC 801	SBX1540-21		19	4		1.5.6	2	
IC 802	CX20158			12		9.15		
IC 901	TC74HC4049F			1		8	1	
IC 902	TC74HC4049F			1		8		
IC 903	TC74HC08F			14		7		
IC 904	TC74HC08F			14		7		
IC 905	TC74HC4050F			1		8		
IC 906	TC74HC08F			14		7		
IC 908	RC7809FA	*	*	*		*	*	*
IC 909	RC7805FA	*	*	*		*	*	*

\* REFER TO SCHEMATIC

DM-56P (1-622-545-31, 32, 33, 34)

CN110	B-7	IC603	F-4	Q303	D-2	Q814	J-6	SP101	A-2
CN111	E-7	IC604	H-1	Q304	E-2	Q901	C-3	SP102	A-2
		IC605	H-1	Q305	D-2	Q902	C-2	SP301	D-2
D101	D-2	IC701	H-2	Q306	D-3			SP402	E-6
D201	A-5	IC702	J-1	Q307	D-3	RV1	B-7	SP501	F-1
D202	A-5	IC703	J-4	Q308	E-2	RV2	B-6	SP502	F-1
D301	E-2	IC704	H-4	Q309	E-3	RV3	B-5	SP701	J-2
D302	E-2	IC801	J-5	Q310	E-3	RV4	C-5	SP801	J-5
D303	D-5	IC802	J-6	Q311	E-4	RV5	C-5		
D304	D-4	IC901	G-5	Q312	E-4	RV6	C-7	TH301	D-5
D305	D-5	IC902	G-6	Q313	D-5	RV7	C-6	TH701	J-5
D601	F-4	IC903	F-7	Q314	E-5	RV8	C-5		
D701	H-2	IC904	G-5	Q315	E-5	RV9	B-4	TP1	B-1
D702	H-2	IC905	G-6	Q316	E-5	RV11	B-5	TP3	C-4
D703	J-4	IC906	G-7	Q317	F-5	RV12	B-5	TP4	B-1
D704	J-3	IC907	F-4	Q318	F-5	RV13	B-5	TP6	C-4
D801	H-6	IC908	A-1	Q401	D-6	RV14	B-5	TP101	A-2
D802	H-6	IC909	A-1	Q402	D-6	RV15	C-3	TP104	C-1
D901	A-1			Q403	D-5	RV101	A-2	TP105	D-2
D902	A-1	LV1	C-5	Q404	D-6	RV102	B-1	TP106	E-1
				Q409	E-6	RV103	B-2	TP201	A-3
DL1	B-4	Q1	B-7	Q410	E-6	RV104	C-1	TP202	A-4
DL501	G-3	Q2	B-7	Q411	E-6	RV105	C-1	TP203	A-5
		Q3	B-7	Q412	E-6	RV106	C-1	TP205	B-1
E1	B-6	Q4	B-6	Q413	F-6	RV107	D-1	TP206	C-4
E5	D-4	Q5	B-6	Q414	F-6	RV201	A-3	TP301	E-1
E101	E-1	Q6	C-5	Q415	E-7	RV202	A-3	TP302	D-2
E201	B-4	Q7	B-4	Q416	E-7	RV203	A-4	TP401	E-6
E401	D-7	Q8	B-4	Q501	G-6	RV204	B-5	TP402	E-6
E501	G-5	Q9	C-7	Q504	G-5	RV205	A-5	TP403	D-6
E502	H-4	Q10	C-7	Q505	H-6	RV206	A-6	TP404	E-6
		Q11	C-7	Q508	H-5	RV207	C-3	TP405	E-6
FL301	D-3	Q12	C-6	Q509	H-4	RV301	D-1	TP406	E-7
FL302	E-3	Q13	C-6	Q510	H-4	RV302	E-1	TP408	D-7
FL303	E-3	Q16	C-4	Q511	H-3	RV303	E-4	TP502	F-1
FL304	E-5	Q18	B-4	Q512	G-3	RV304	D-4	TP504	F-1
FL701	J-3	Q19	B-4	Q513	H-4	RV305	D-5	TP505	H-4
FL801	J-4	Q20	B-4	Q514	H-4	RV306	E-5	TP506	G-2
		Q21	B-5	Q515	G-4	RV307	E-5	TP507	F-1
IC1	B-6	Q22	B-5	Q516	G-4	RV308	F-5	TP508	F-1
IC2	C-6	Q23	B-5	Q517	G-3	RV401	E-6	TP601	F-2
IC3	B-6	Q24	B-5	Q518	G-3	RV405	F-6	TP602	F-3
IC4	C-6	Q25	B-4	Q519	G-3	RV406	D-6	TP603	F-4
IC5	C-4	Q26	B-3	Q520	G-2	RV501	G-6	TP604	H-1
IC101	B-3	Q27	C-3	Q521	G-2	RV502	G-5	TP605	J-1
IC102	B-2	Q28	C-3	Q522	G-2	RV503	H-5	TP606	H-1
IC103	A-2	Q101	B-3	Q523	G-2	RV504	H-6	TP708	H-2
IC104	D-1	Q102	B-3	Q524	G-2	RV505	H-5	TP709	J-2
IC105	E-1	Q103	B-3	Q525	G-2	RV507	G-3	TP801	J-6
IC201	A-3	Q104	A-2	Q526	F-1	RV508	H-4	TP802	H-5
IC202	A-4	Q105	A-2	Q527	H-3	RV509	H-3	TP803	H-7
IC203	A-5	Q106	A-2	Q601	F-1	RV510	G-4	TP804	J-6
IC204	A-6	Q107	B-2	Q602	F-2	RV511	G-3	TP805	J-4
IC205	A-6	Q108	C-2	Q603	F-3	RV512	F-1	TP901	C-1
IC207	C-3	Q109	C-2	Q604	G-4	RV601	F-2	TP902	F-1
IC301	E-1	Q110	D-1	Q605	F-4	RV602	F-2		
IC302	E-2	Q111	C-1	Q606	F-4	RV603	F-3		
IC303	D-4	Q112	B-1	Q607	G-1	RV604	G-3		
IC304	E-4	Q113	B-2	Q608	G-1	RV605	H-1		
IC305	D-5	Q114	B-1	Q609	G-1	RV606	G-1		
IC306	E-5	Q115	C-1	Q610	G-1	RV701	G-1		
IC401	F-6	Q116	C-1	Q701	H-2	RV702	J-1		
IC402	E-7	Q117	D-1	Q702	J-3	RV703	J-3		
IC403	D-7	Q118	D-1	Q703	J-2	RV704	J-3		
IC501	G-6	Q119	D-1	Q704	J-2	RV707	J-1		
IC502	G-6	Q201	A-2	Q705	J-3	RV801	J-5		
IC503	H-6	Q202	A-3	Q706	J-4	RV802	J-6		
IC504	H-6	Q203	A-3	Q707	J-3				
IC505	G-4	Q204	B-5	Q708	H-3	S402	D-6		
IC506	G-2	Q205	A-5	Q709	H-3	S403	E-6		
IC507	G-1	Q206	A-5	Q801	J-4	S802	H-5		
IC508	F-1	Q207	A-5	Q802	J-5	S901	E-7		
IC509	G-2	Q208	B-3	Q803	J-5				
IC601	F-2	Q301	E-2	Q804	J-5	SL701	H-2		
IC602	F-3	Q302	E-2	Q813	H-5				



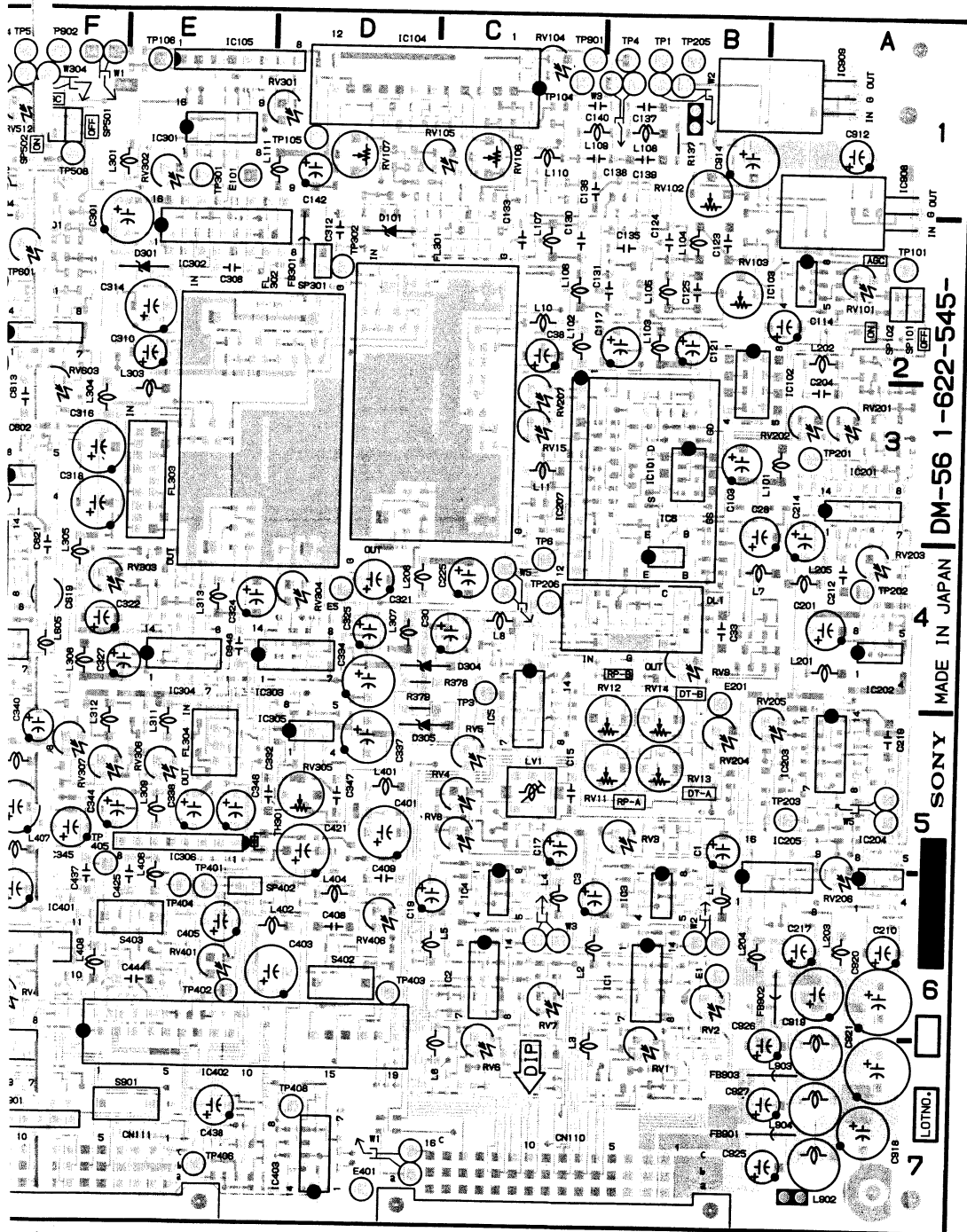
DUS-259 — COMPONENT SIDE —

1-626-836-11  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

DUS-259

1-626-836-11  
BVW-60P BV  
BVW-65P BV  
BVW-70P BV

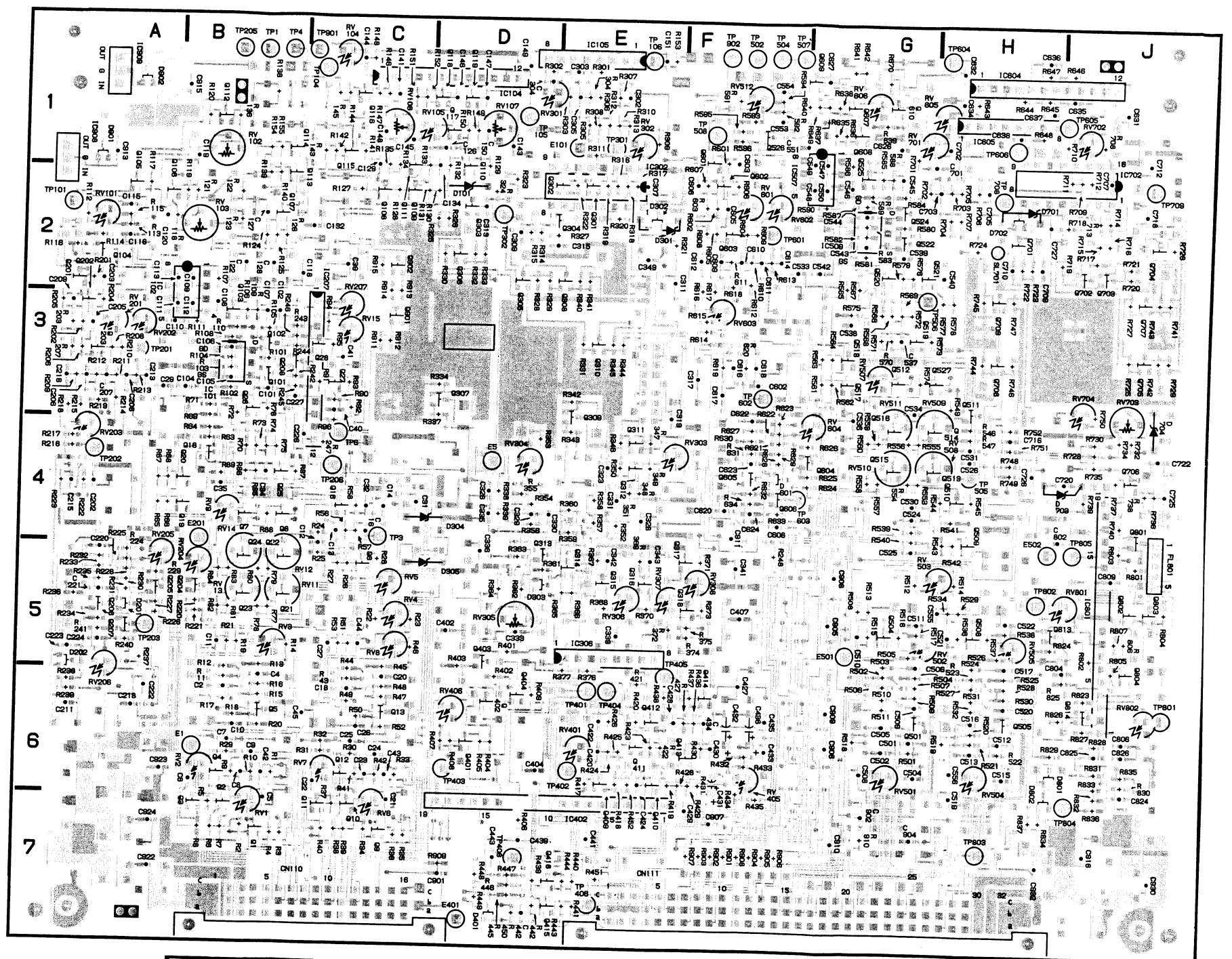


**DM-56P — COMPONENT SIDE —**

1-622-545-31, 32, 33, 34  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

**DUS-259 — SOLDERING SIDE —**

1-626-836-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

**DUS-269 — COMPONENT SIDE —**

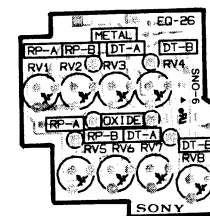
1-627-282-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

**DUS-269 — SOLDERING SIDE —**

1-627-282-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

DUS-288, EQ-26, EQ-28

S/N 10192 and higher



EQ-28

METAL

RP-A RP-B DT-A DT-B

RV1 RV2 RV3 RV4

RP-A OXIDE

RP-B DT-A

RV5 RV6 RV7

DT-B

SONY

DUS-288  
SNO-6  
C1 Q1 R1  
JAPAN 1-628-943-11

**DUS-288**—SOLDERING SIDE—  
1-628-943-11  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



TBC-7P; TIME BASE CORRECTOR  
SW-261; METAL/OXIDE Y/C DELAY ADJUST VOLUME

S/N 10061 through 10191

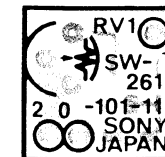
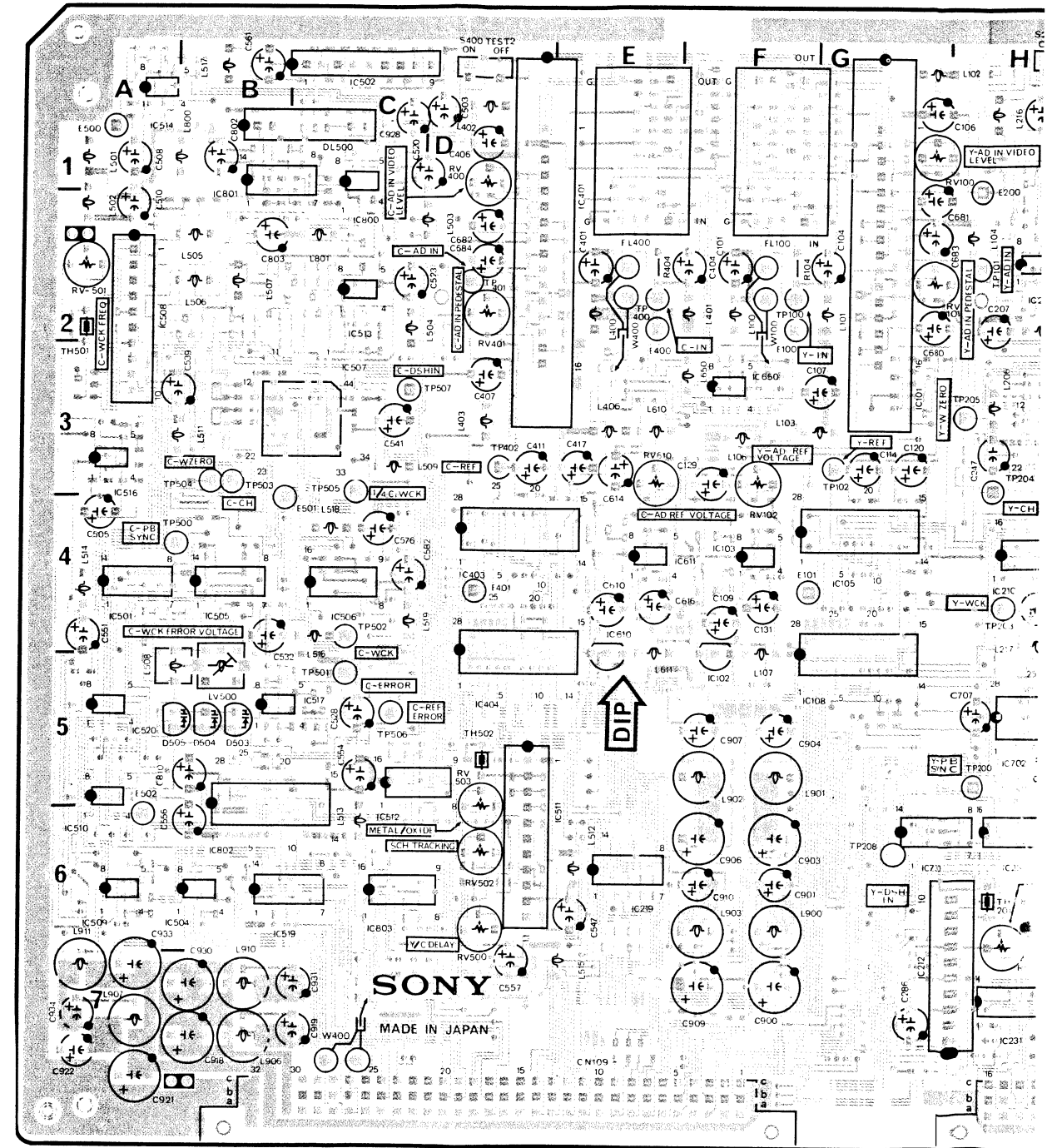
TBC-7P (1-622-548-12)

REF. NO	TYPE	PIN. NO					
		+12V	+9V	+5V	GND	-5V	-12V
IC 101	SBX4002-01	2.11			4.13		
IC 102	TL431CLPB	*	*	*	*	*	*
IC 103	TL082CPS	8					4
IC 105	CXA1096M		13.17		13.14.15.18		
IC 108	CXD1310M		21		7		
IC 201	TA7357AP	9			5		
IC 203	MB4002PF	8			1		4
IC 205	MB4002PF	8			1		4
IC 206	SN74LS221NS			16	8		
IC 207	TL082CPS						4
IC 208	SN74LS06NS			14	7		
IC 209	MC10H116M				1.16	8	
IC 210	MC10H125M			9	16	8	
IC 211	CXD1045Q			17.39	1.6.28		
IC 212	BX-1461				4.7		
IC 213	TL082CPS	8					4
IC 214	TL601CPS			8		4	
IC 215	SN74LS221NS			16	8		
IC 216	BX-1460	10			8		9
IC 217	PC319G2	11			3		
IC 218	TC74HC221F			16	8		
IC 219	TCS74HC74F			14	7		
IC 220	TL082CPS	8					4
IC 221	TL601CPS	8					4
IC 222	PC339G2	3			12		
IC 223	TC74HC32F			14	7		
IC 224	TC74HC00F			14	7		
IC 225	TL082CPS	8					4
IC 226	TL601CPS	8			1		5
IC 231	TC74HC08F			14	7		
IC 232	TL601CPS	8			1		5
IC 233	TL082COS	8					4
IC 401	BX-1464	2.11			4.13		
IC 403	CXA1096M		13.17		12.14.15.18		
IC 404	CXD1310M		21		7		
IC 501	TC74HC00F			14	7		
IC 502	TA7357AP	9			5		
IC 504	TL082CPS	8					4
IC 505	SN74LS06NS			14	7		
IC 506	MC10H125M			9	16		
IC 507	CXD1045Q			17.39	1.6.28		
IC 508	BX-1461	8			4.6		
IC 509	TL082CPS	8					4
IC 510	TL601CPS	8			1		5
IC 511	BX-1460	10			8		9
IC 512	SN74LS221NS			16	8		
IC 513	MB4002PF	8			1		4
IC 514	TL601CPS	8			1		5
IC 516	TL082CPS	8					4
IC 517	TL082CPS	8					4
IC 519	TC74HC86F	8		14	7		5
IC 520	TL601CPS	*	*	*	*	*	*
IC 610	TL431CLPB						
IC 611	TL082CPS	8					4
IC 650	MB4002PF	8			1		4
IC 700	TL601CPS	8			1		5
IC 701	CX20158			14	5.7.10	1	
IC 702	CX7930A			28	14		
IC 720	TC74HC08F			14	7		
IC 800	TL601CPS	8			1		5
IC 801	CX20158			14	5.7.10	1	
IC 802	CX7930A			28	14		
IC 803	SN74LS221NS			16	8		

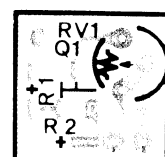
\* REFER TO SCHEMATIC

TBC-7P (1-622-548-12)

CN108	J-7	IC222	K-6	Q403	F-1	TP502	C-4
CN109	D-7	IC223	J-7	Q404	F-1	TP503	B-3
		IC224	J-7	Q500	B-1	TP504	B-3
D100	F-1	IC225	K-6	Q501	B-2	TP505	C-3
D200	H-2	IC226	K-5	Q503	B-4	TP506	C-5
D202	J-5	IC228	L-5	Q504	A-3	TP507	C-3
D203	J-5	IC231	H-7	Q505	A-1		
D204	K-5	IC232	L-6	Q512	B-2		
D205	L-4	IC233	L-6	Q513	B-2		
D206	L-4	IC234	H-6	Q514	B-2		
D207	L-4	IC401	D-2	Q515	B-2		
D208	J-6	IC403	D-4	Q516	A-3		
D209	J-1	IC404	D-4	Q610	E-4		
D210	K-2	IC501	A-4	Q611	E-4		
D211	K-5	IC502	C-1	Q680	G-3		
D212	K-4	IC504	B-6	Q681	E-3		
D213	K-5	IC505	B-4	Q800	B-2		
D400	F-1	IC506	C-4	Q801	D-2		
D503	B-5	IC507	C-3	Q802	B-2		
D504	B-5	IC508	A-2				
D505	B-5	IC509	A-6	RV100	G-1		
D506	A-5	IC510	A-5	RV101	G-2		
D507	B-5	IC511	D-6	RV102	F-3		
D508	B-2	IC512	C-5	RV200	L-3		
D650	F-3	IC513	C-2	RV201	H-6		
D680	G-3	IC514	A-1	RV202	K-5		
D700	K-4	IC516	A-3	RV203	L-5		
D701	K-6	IC517	B-5	RV400	D-1		
D702	K-6	IC519	C-6	RV401	D-2		
D703	K-6	IC520	A-5	RV500	D-6		
D704	L-5	IC610	E-4	RV501	A-2		
D705	L-6	IC611	E-4	RV502	D-6		
D706	L-6	IC650	F-3	RV503	D-5		
D707	H-2	IC700	L-1	RV610	E-3		
		IC701	L-2				
DL500	C-1	IC702	H-5	S100	J-1		
		IC720	G-6	S101	J-1		
E100	F-2	IC800	C-1	S200	H-1		
E101	F-4	IC801	B-1	S400	D-1		
E200	H-1	IC802	B-5				
E201	L-3	IC803	C-6	SL200	J-3		
E202	K-5			SL201	J-3		
E400	E-2	LV200	J-4	SL202	H-3		
E401	D-4	LV201	L-4	SL203	H-3		
E500	A-1	LV500	B-5	SL204	H-3		
E501	C-4			SL205	H-5		
E502	A-6			SL505	B-3		
		Q100	F-2	SL506	B-3		
		Q101	F-4	SL507	B-3		
		Q102	F-4	SL508	B-3		
		Q103	C-1	SL509	B-3		
		Q104	F-1	SL511	B-5		
		Q105	F-1				
		Q106	F-1				
		Q201	J-4	TH201	H-6		
		Q203	J-6	TH202	L-3		
		Q204	H-1	TH501	A-2		
		Q205	H-1	TH502	D-5		
		Q206	H-1				
		Q207	H-2	TP100	F-2		
		Q208	J-2	TP101	H-2		
		Q209	J-1	TP102	G-3		
		Q210	J-2	TP200	H-5		
		Q211	K-2	TP201	J-5		
		Q212	K-2	TP202	J-6		
		Q213	K-2	TP203	H-4		
		Q214	K-2	TP204	H-3		
		Q215	H-7	TP205	H-3		
		Q220	L-1	TP206	J-3		
		Q221	L-1	TP207	K-5		
		Q222	L-4	TP208	G-6		
		Q223	K-4	TP400	E-2		
		Q244	L-6	TP401	D-2		
		Q400	E-2	TP402	D-3		
		Q401	E-1	TP500	B-4		
		Q402	E-1	TP501	C-5		

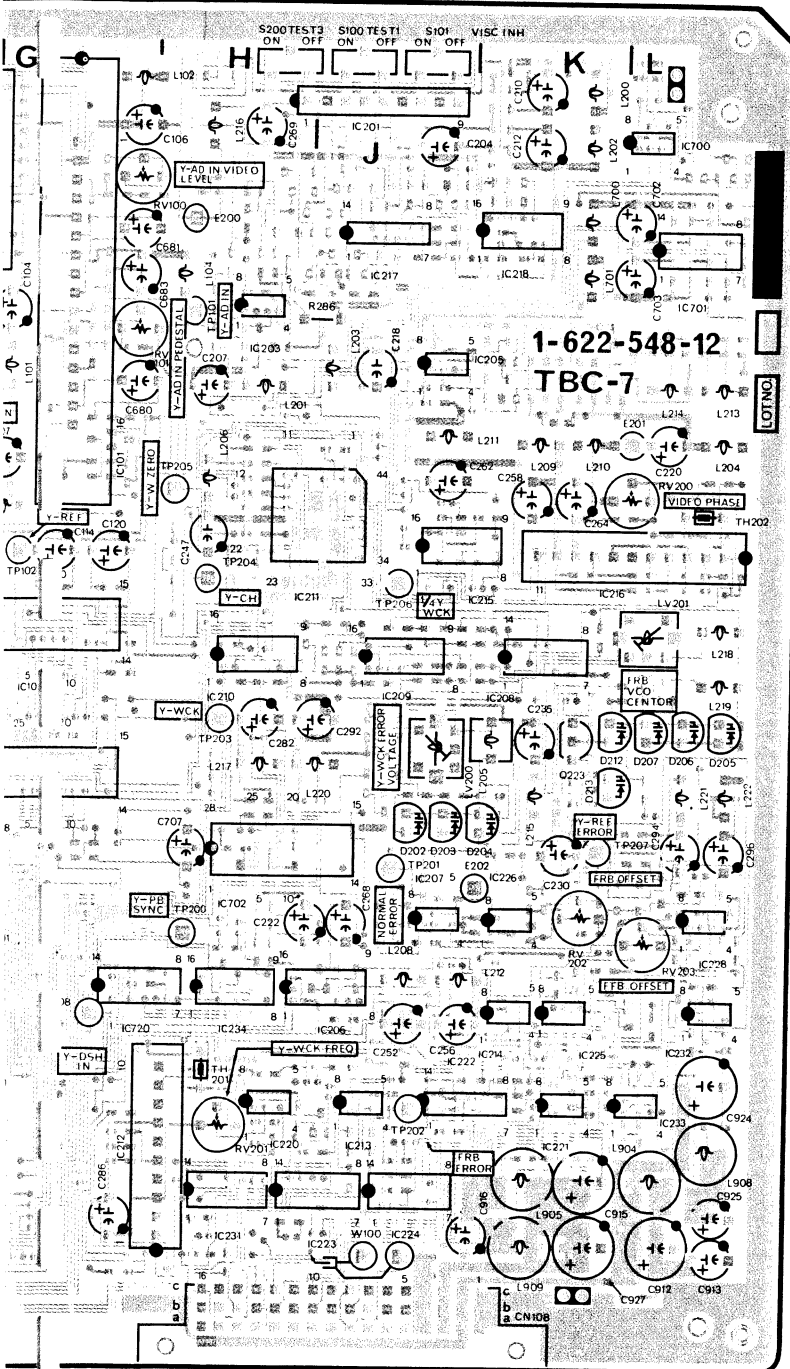


SW-261 — COMPONENT SIDE —

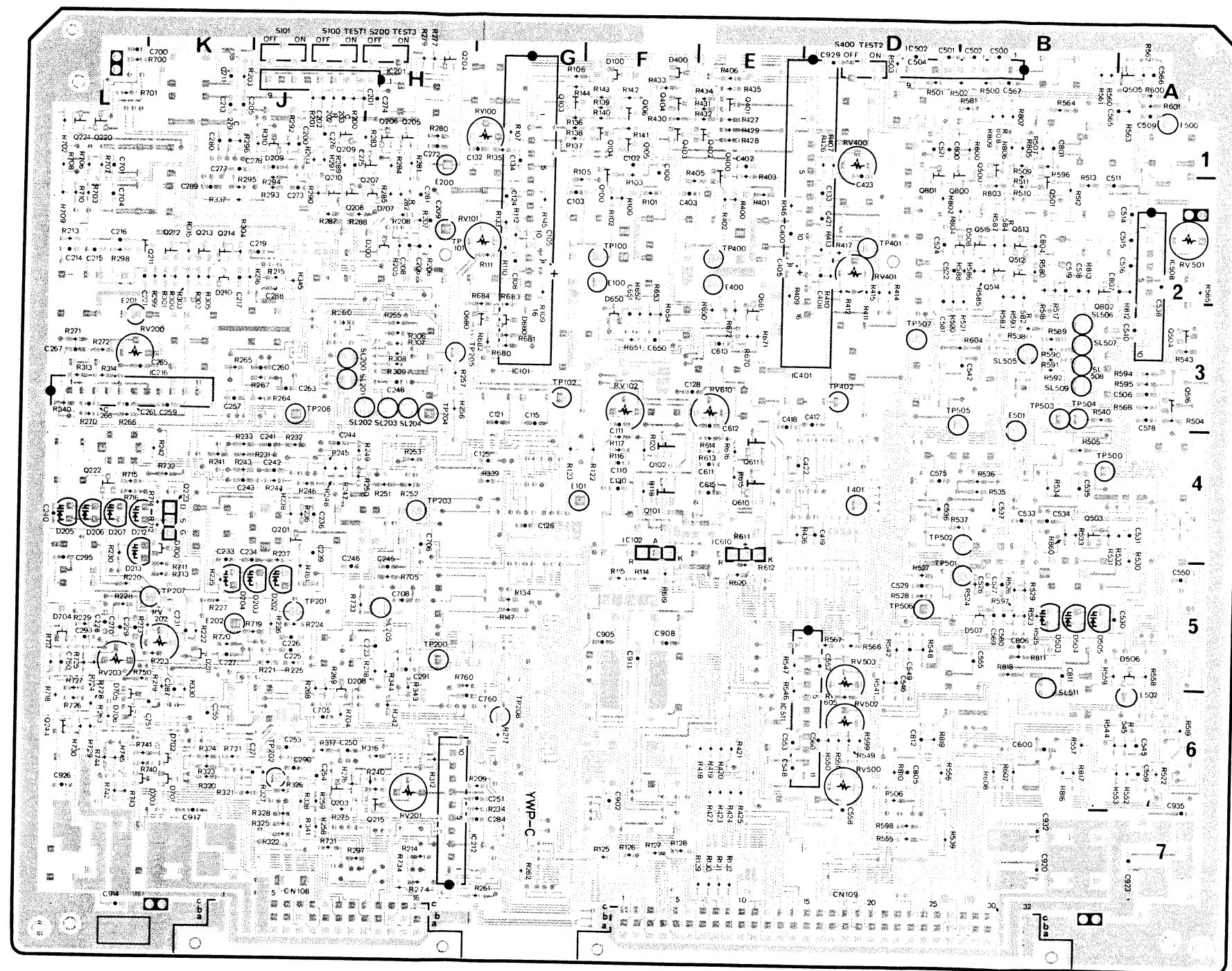
1-624-101-11  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

SW-261 — SOLDERING SIDE —

1-624-101-11  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



**TBC-7P** — COMPONENT SIDE —  
1-622-548-12  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



**TBC-7P** — SOLDERING SIDE —  
1-622-548-12  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

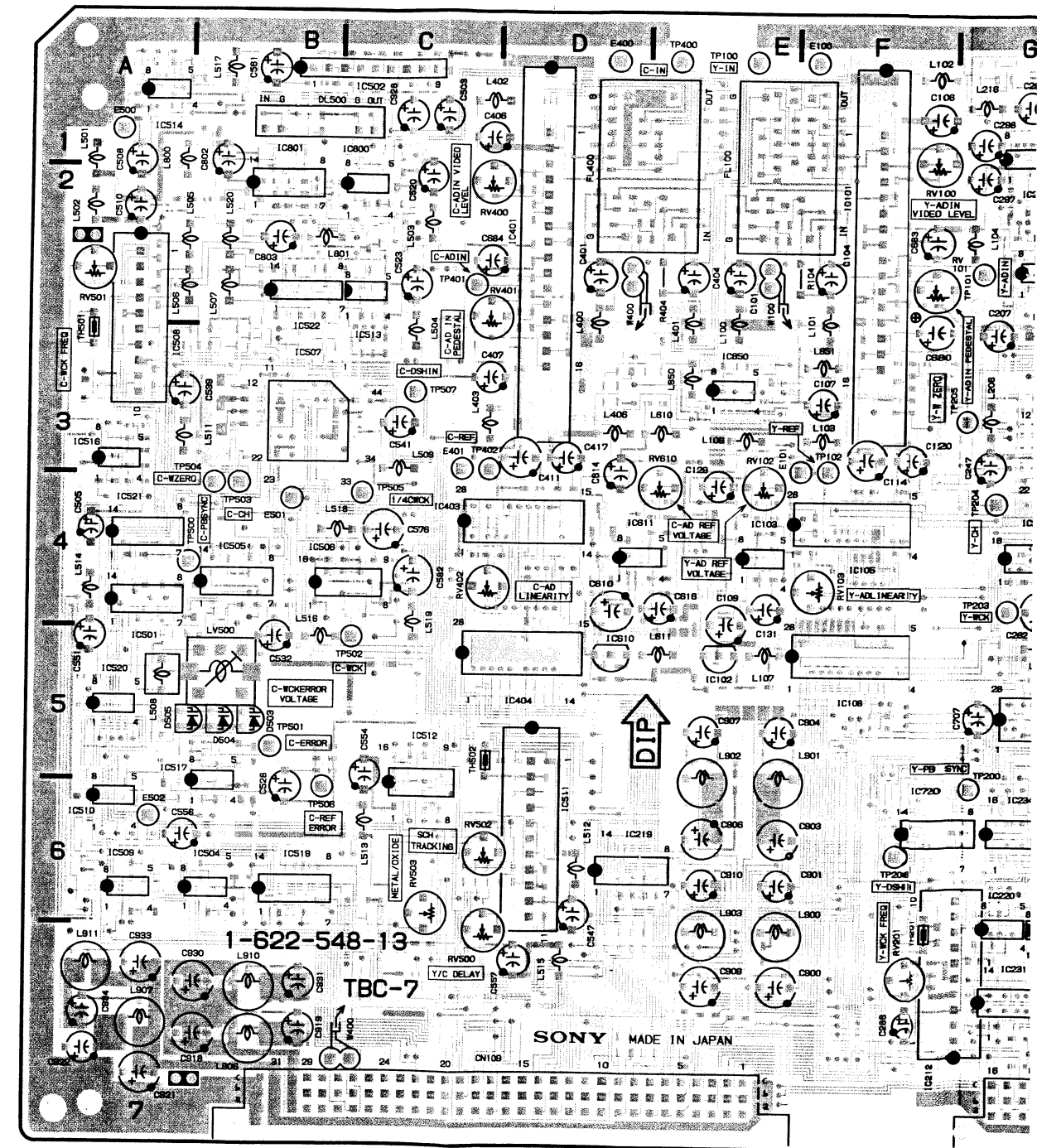
TBC-7P (1-622-548-13)

REF. NO.	TYPE	PIN. NO					
		+12V	+9V	+5V	GND	-5V	-12V
IC 101	SBX4002-01	2.11			4.13		5.14
IC 102	TL431CLPB	*	*	*	*	*	*
IC 103	TL082CPS	8					4
IC 105	CXA1096M			3.25.26	13.14.15.18	13.17	
IC 108	CXD1310AM			21	7		
IC 201	TA7357AP	*			5		
IC 203	MB4002PF	8			1		4
IC 205	MB4002PF	8			1		4
IC 206	SN74LS221NS			16	8		
IC 207	TL082CPS	8					4
IC 208	SN74LS06NS			*	7		
IC 209	MC10H116M				1.16	8	
IC 210	MC10H125M			9	16		
IC 211	CXD1045AQ			17.39	1.6.28		
IC 212	BX-1461	8			4.7		
IC 213	TL082CPS	8					4
IC 214	TL601CPS	8					5
IC 215	SN74LS221NS			16	8		
IC 216	BX-1460	10			8		9
IC 217	PC319G2	11			3.8		6
IC 218	TC74HC221F			16	8		
IC 219	TC74HC74F			14	7		
IC 220	TL082CPS	8					4
IC 221	TL601CPS	8			1		5
IC 222	PC339G2	3			12		
IC 223	TC74HC32F			14	7		
IC 224	TC74HC00F			14	7		
IC 225	TL082CPS	8					4
IC 226	TL601CPS	8			1		5
IC 231	TC74HC08F			14	7		
IC 232	TL601CPS	8			1		5
IC 235	TC74HC157F			16	8		
IC 236	TC74HC157F			16	8		
IC 237	TL082CPS	8					4
IC 238	SN74LS123			16			
IC 239	TC74HC32F			10.12	9.13		
IC 241	PC339G			5	4		8
IC 401	SBX-4002-01	2.11			4.13		5.14
IC 403	CXA1096M			13.17	12.14.15.18		
IC 404	CXD1310AM		21		7		
IC 501	TC74HC00F			14	7		
IC 502	TA7357AP	*			5		
IC 504	TL082CPS	8					4
IC 505	SN74LS06NS			14	7		
IC 506	MC10H125M			9	16		
IC 507	CXD1045AQ			17.39	1.6.28		
IC 508	BX-1461	8			4.6		
IC 509	TL082CPS	8					4
IC 510	TL601CPS	8			1		5
IC 511	BX-1460	10			8		9
IC 512	SN74LS221NS			16	8		
IC 513	MB4002PF	8			1		4
IC 514	TL601CPS	8			1		5
IC 516	TL082CPS	8					4
IC 517	TL082CPS	8					4
IC 519	TC74HC86F			14	7		
IC 520	TL601CPS	8			1		5
IC 610	TL431CLPB	*	*	*	*	*	*
IC 611	TL082CPS	8					4
IC 650	MB4002PF	8			1		4
IC 700	TL601CPS	8			1		5
IC 701	CX20158			12	5.7.10	1	
IC 702	CX7930A			28	14		
IC 720	TC74HC08F			14	7		
IC 800	TL601CPS	8			1		5
IC 801	CX20158			14	5.7.10	1	

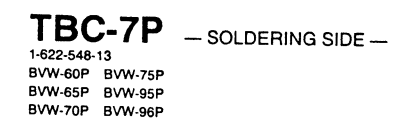
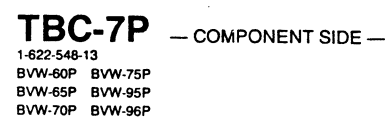
\* REFER TO SCHEMATIC

TBC-7P (1-622-548-13)

CN108	H-7	IC224	H-6	Q227	H-7	TP207	J-5
CN109	D-7	IC225	J-6	Q228	H-7	TP208	F-6
		IC226	H-5	Q229	H-2	TP400	E-1
D100	E-1	IC228	J-6	Q230	H-2	TP401	C-2
D200	G-2	IC231	G-7	Q400	E-2	TP402	D-3
D202	H-5	IC232	J-6	Q401	D-1	TP500	B-4
D203	H-5	IC234	G-6	Q402	E-1	TP501	B-5
D204	H-5	IC235	H-3	Q403	E-1	TP502	C-4
D205	J-4	IC236	G-3	Q404	E-1	TP503	B-3
D206	J-4	IC237	G-1	Q500	B-2	TP504	B-3
D207	J-4	IC238	J-2	Q501	B-2	TP505	C-4
D208	G-6	IC239	H-6	Q503	B-4	TP506	B-6
D209	H-2	IC240	G-1	Q504	A-3	TP507	C-3
D210	J-3	IC241	J-6	Q505	A-1		
D211	J-5	IC401	D-2	Q512	B-2		
D212	J-4	IC403	D-4	Q513	B-2		
D213	J-5	IC404	D-5	Q514	B-2		
D214	H-2	IC501	A-4	Q515	B-2		
D400	E-1	IC502	C-1	Q516	A-3		
D503	B-5	IC504	B-6	Q610	D-4		
D504	B-5	IC505	B-4	Q611	D-4		
D505	B-5	IC506	C-4	Q680	F-3		
D506	A-6	IC507	B-3	Q681	D-3		
D507	B-6	IC508	A-2	Q800	C-2		
D508	C-2	IC509	A-6	Q801	C-2		
D650	E-3	IC510	A-6	Q802	A-3		
D680	F-3	IC511	D-6				
D700	J-5	IC512	C-5	RV100	F-1		
D704	J-5	IC513	C-2	RV101	F-2		
D705	J-6	IC514	A-1	RV102	E-4		
D706	J-6	IC516	A-3	RV103	F-4		
D707	G-2	IC517	B-5	RV200	J-3		
		IC519	B-6	RV201	F-7		
DL500	B-1	IC520	A-5	RV202	J-5		
		IC521	A-4	RV203	J-5		
		IC522	B-2	RV204	H-2		
E100	F-1	IC610	D-5	RV400	D-1		
E101	F-4	IC611	D-4	RV401	D-2		
E200	H-2	IC650	E-3	RV402	C-4		
E201	H-5	IC700	J-1	RV500	D-6		
E202	J-4	IC701	J-2	RV501	A-2		
E400	D-1	IC702	G-5	RV502	D-6		
E401	C-3	IC720	F-6	RV503	C-6		
E500	A-1	IC800	C-2	RV610	E-4		
E501	B-4	IC801	B-2				
E502	A-6						
FL100	E-1	LV200	H-5	S101	H-1		
FL400	E-1	LV201	J-4	S200	H-1		
		LV500	B-5				
IC101	F-2	Q100	E-2	SL200	G-3		
IC102	E-5	Q101	E-4	SL201	G-3		
IC103	E-4	Q102	E-4	SL202	G-4		
IC105	F-4	Q103	F-1	SL203	G-4		
IC108	F-5	Q104	F-1	SL204	G-4		
IC201	G-1	Q105	E-1	SL205	G-5		
IC203	G-2	Q106	E-1	SL505	B-3		
IC205	H-2	Q201	H-5	SL506	B-3		
IC206	G-6	Q203	G-6	SL507	B-3		
IC207	H-5	Q204	G-1	SL508	B-3		
IC208	J-4	Q205	G-1	SL509	B-3		
IC209	H-4	Q206	G-1				
IC210	G-4	Q207	G-2	TH201	F-6		
IC211	G-3	Q208	G-2	TH202	J-3		
IC212	G-7	Q211	J-2	TH501	A-2		
IC213	G-6	Q212	J-3	TH502	C-5		
IC214	H-6	Q213	J-2				
IC215	H-4	Q214	H-3				
IC216	J-3	Q215	G-7				
IC217	H-2	Q220	J-1	TP100	E-1		
IC218	H-2	Q221	J-1	TP101	G-2		
IC219	D-6	Q222	J-4	TP102	F-3		
IC220	G-6	Q223	J-4	TP200	G-5		
IC221	J-6	Q224	H-6	TP201	H-5		
IC222	H-7	Q225	H-6	TP202	J-7		
IC223	G-7			TP203	G-4		
				TP204	G-4		
				TP205	G-3		
				TP206	H-4		







## TBC-7D; TIME BASE CORRECTOR

S/N 10770 and higher

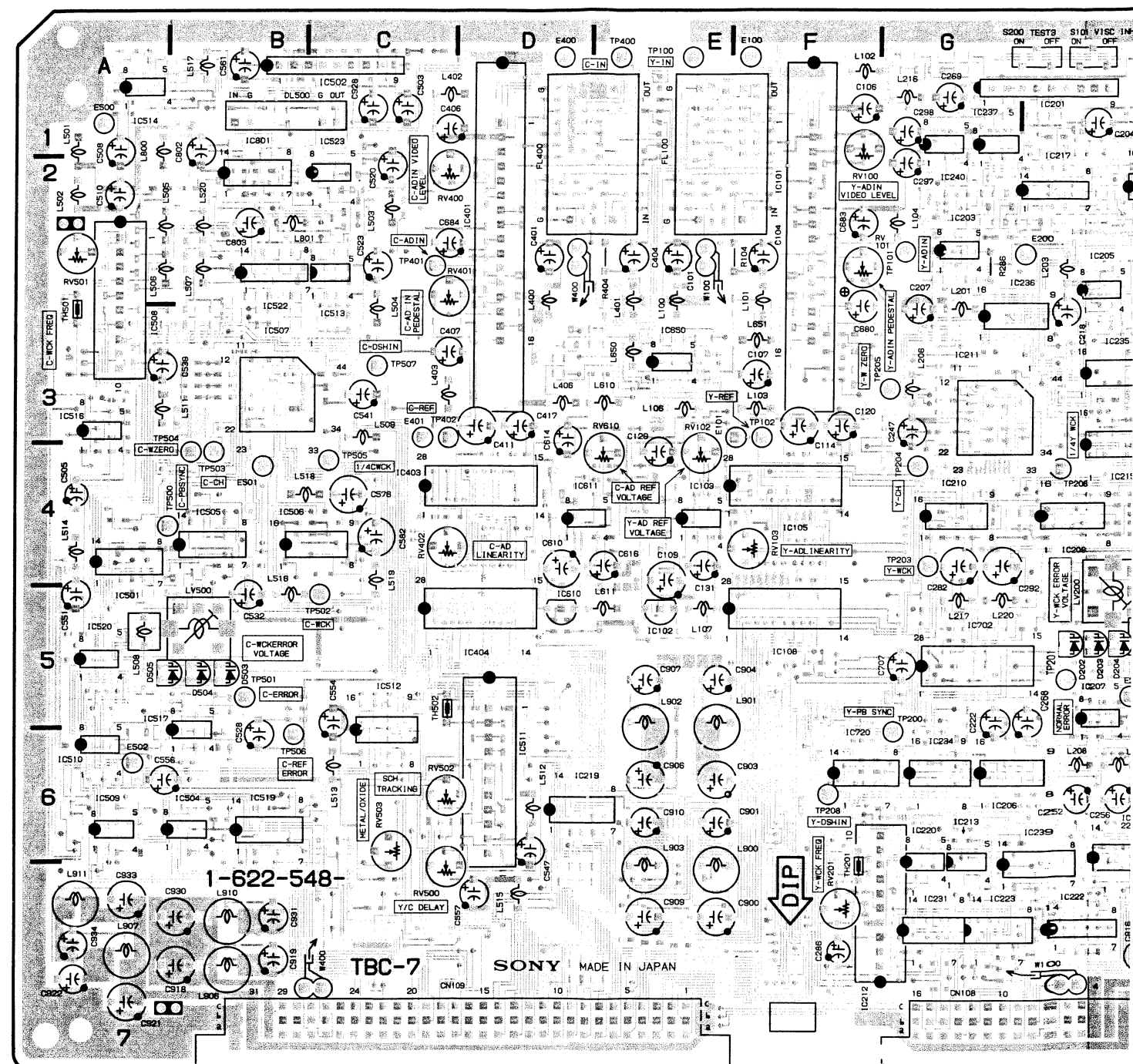
TBC-7D (1-622-548-14,15)

REF. NO.	TYPE	PIN. NO					
		+12V	+9V	+5V	GND	-5V	-12V
IC 101	SBX4002-01	2.11			4.13		5.14
IC 102	TL431CLPB	*	*	*	*	*	*
IC 103	TL082CPS	8					4
IC 105	CXA1096M			3.25.26	13.14.15.18	13.17	
IC 108	CXD1310AM			21	7		
IC 201	TA7357AP	*			5		
IC 203	MB4002PF	8			1		4
IC 205	MB4002PF	8			1		4
IC 206	SN74LS221NS			16	8		
IC 207	TL082CPS	8					4
IC 208	SN74LS06NS			*	7		
IC 209	MC10H116M				1.16	8	
IC 210	MC10H125M			9	16	8	
IC 211	CXD1045AQ			17.39	1.6.28		
IC 212	BX-1461	8			4.7		
IC 213	TL082CPS	8					4
IC 214	TL601CPS	8					5
IC 215	SN74LS221NS			16	8		
IC 216	BX-1460	10			8		9
IC 217	μPC319G2	11			3.8		6
IC 218	TC74HC221F			16	8		
IC 219	TC574HC74F			14	7		
IC 220	TL082CPS	8					4
IC 221	TL601CPS	8			1		5
IC 222	μPC339G2	3			12		
IC 223	TC74HC32F			14	7		
IC 224	TC74HC00F			14	7		
IC 225	TL082CPS	8					4
IC 226	TL601CPS	8			1		5
IC 231	TC74HC08F			14	7		
IC 232	TL601CPS	8			1		5
IC 235	TC74HC157F			16	8		
IC 236	TC74HC157F			16	8		
IC 237	TL082CPS	8			8		4
IC 238	SN74LS123			16			
IC 239	TC74HC32F			10.12	9.13		
IC 241	μPC393G			5	4		
IC 401	SBX-4002-01	2.11			4.13		5.14
IC 403	CXA1096M			13.17	12.14.15.18		
IC 404	CXD1310AM		21		7		
IC 501	TC74HC00F			14	7		
IC 502	TA7357AP	*			5		
IC 504	TL082CPS	8					4
IC 505	SN74LS06NS			14	7		
IC 506	MC10H125M			9	16		
IC 507	CXD1045AQ			17.39	1.6.28		
IC 508	BX-1461	8			4.6		
IC 509	TL082CPS	8					4
IC 510	TL601CPS	8			1		5
IC 511	BX-1460	10			8		9
IC 512	SN74LS221NS			16	8		
IC 513	MB4002PF	8			1		4
IC 514	TL601CPS	8			1		5
IC 516	TL082CPS	8					4
IC 517	TL082CPS	8					4
IC 519	TC74HC86F			14	7		
IC 520	TL601CPS	8					5
IC 610	TL431CLPB	*	*	*	*	*	*
IC 611	TL082CPS	8					4
IC 650	MB4002PF	8			1		4
IC 700	TL601CPS	8			1		5
IC 701	CX20158			12	5.7.10	1	
IC 702	CX7930A			28	14		
IC 720	TC74HC08F			14	7		
IC 801	CX20158			14	5.7.10	1	

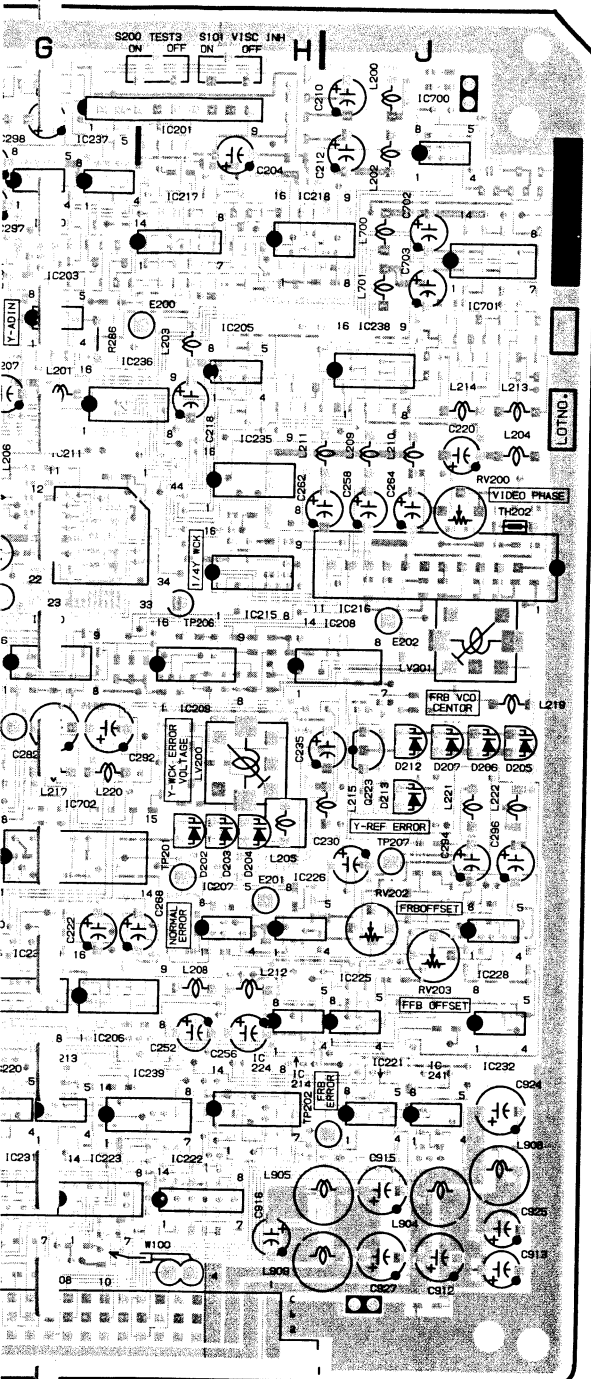
\* REFER TO SCHEMATIC

TBC-7D (1-622-548-14,15)

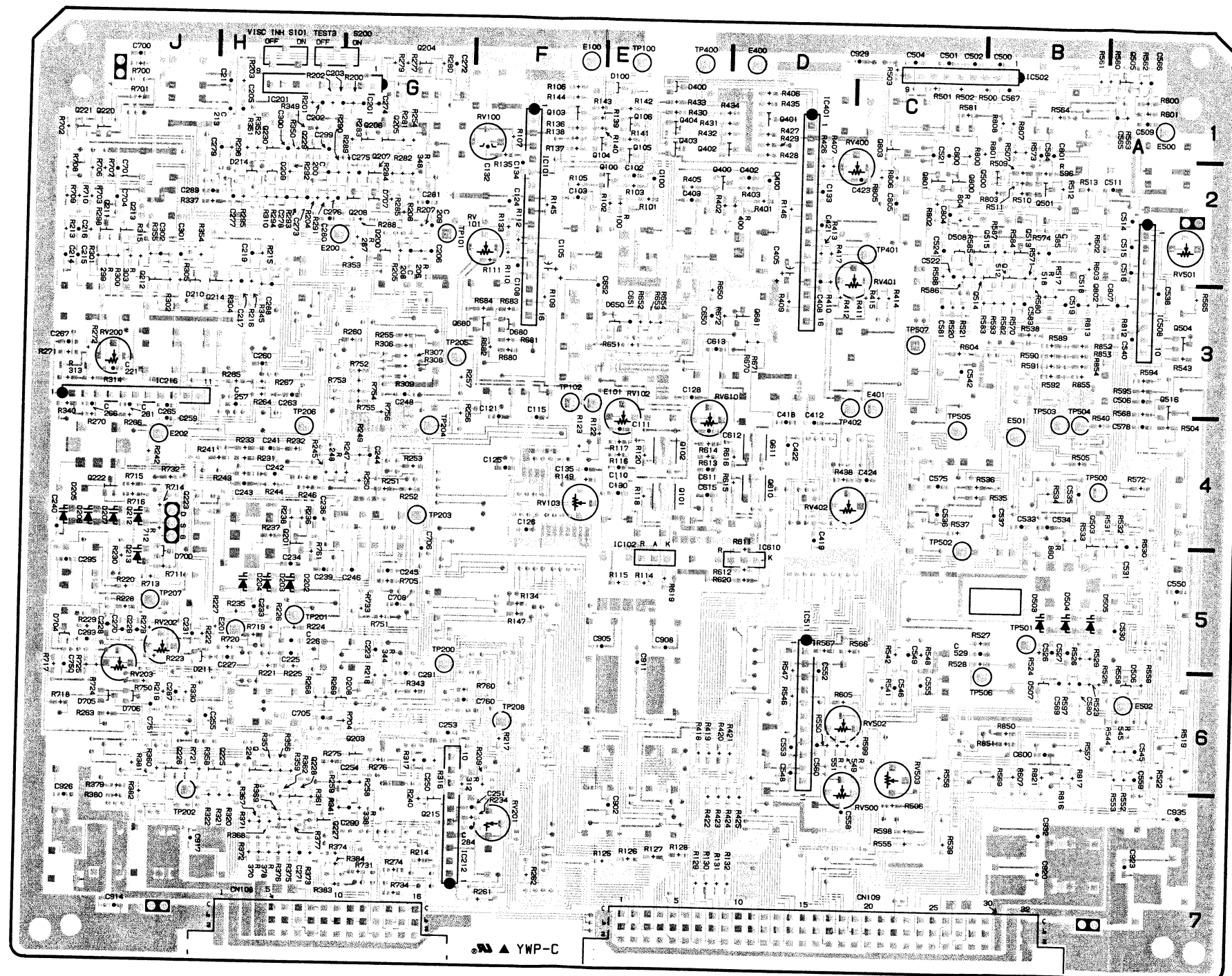
CN108	H-7	IC225	J-6	Q229	H-2
CN109	D-7	IC226	H-5	Q230	H-2
		IC228	J-5	Q400	E-2
D100	E-1	IC231	G-7	Q401	D-1
D200	G-2	IC232	J-6	Q402	E-1
D202	H-5	IC234	G-6	Q403	E-1
D203	H-5	IC235	H-3	Q404	E-1
D204	H-5	IC236	G-3	Q500	B-2
D205	J-4	IC237	G-1	Q501	B-2
D206	J-4	IC238	J-2	Q503	B-4
D207	J-4	IC239	H-6	Q504	A-3
D208	G-6	IC240	G-1	Q505	A-1
D209	H-2	IC241	J-6	Q512	B-2
D210	J-3	IC401	D-2	Q513	B-2
D211	J-6	IC403	D-4	Q514	B-2
D212	J-4	IC404	D-5	Q515	B-2
D213	J-5	IC501	A-4	Q516	A-3
D214	H-2	IC502	C-1	Q610	D-4
D400	E-1	IC504	B-6	Q611	D-4
D503	B-5	IC505	B-4	Q680	G-3
D504	B-5	IC506	C-4	Q681	D-3
D505	A-5	IC507	B-3	Q800	C-2
D506	A-6	IC508	A-2	Q801	C-2
D507	B-6	IC509	A-6	Q802	B-3
D508	C-2	IC510	A-6	Q803	C-1
D650	E-3	IC511	D-6		
D680	F-3	IC512	C-5	RV100	F-1
D700	J-5	IC513	C-2	RV101	F-2
D704	J-5	IC514	A-1	RV102	E-4
D705	J-6	IC516	A-3	RV103	F-4
D706	J-6	IC517	B-6	RV200	J-3
D707	G-2	IC519	B-6	RV201	F-7
		IC520	A-5	RV202	J-5
		IC522	B-2	RV203	J-6
DL500	B-1	IC523	C-2	RV400	C-2
		IC610	D-5	RV401	C-2
E100	F-1	IC611	D-4	RV402	C-4
E101	F-3	IC650	E-3	RV500	C-7
E200	H-2	IC700	J-1	RV501	A-2
E201	H-5	IC701	J-2	RV502	C-6
E202	J-4	IC702	G-5	RV503	C-6
E400	D-1	IC720	F-6	RV610	E-4
E401	C-3	IC801	B-2		
E500	A-1			S101	H-1
E501	A-4	LV200	H-5	S200	H-1
E502	A-6	LV201	J-4		
FL100	E-1	LV500	B-5	TH201	F-6
FL400	D-1			TH202	J-3
		Q100	F-2	TH501	A-2
IC101	F-2	Q101	E-4	TH502	C-5
IC102	E-5	Q102	E-4		
IC103	E-4	Q103	F-1	TP100	E-1
IC105	F-4	Q104	F-1	TP101	G-2
IC108	F-5	Q105	E-1	TP102	F-3
IC201	H-1	Q106	E-1	TP200	G-5
IC203	G-2	Q201	H-5	TP201	H-5
IC205	H-2	Q203	G-6	TP202	J-7
IC206	G-6	Q204	G-1	TP203	G-4
IC207	H-5	Q205	G-1	TP204	G-4
IC208	J-4	Q206	G-1	TP205	G-3
IC209	H-4	Q207	G-2	TP206	H-4
IC210	G-4	Q208	G-2	TP207	J-5
IC211	G-3	Q211	J-2	TP208	F-6
IC212	G-7	Q212	J-3	TP400	E-1
IC213	G-6	Q213	J-2	TP401	C-2
IC214	J-6	Q214	H-3	TP402	C-3
IC215	H-3	Q215	G-7	TP500	A-4
IC216	J-3	Q220	J-1	TP501	B-5
IC217	H-2	Q221	J-1	TP502	C-5
IC218	H-2	Q222	J-4	TP503	B-4
IC219	D-6	Q223	J-4	TP504	B-4
IC220	G-6	Q224	H-6	TP505	C-4
IC221	J-6	Q225	H-6	TP506	B-6
IC222	H-7	Q226	J-6	TP507	C-3
IC223	G-7	Q227	H-7		
IC224	H-6	Q228	H-7		







**TBC-7D**—COMPONENT SIDE—  
1-622-548-14,15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P



**TBC-7D—SOLDERING SIDE—**  
1-622-548-14,15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

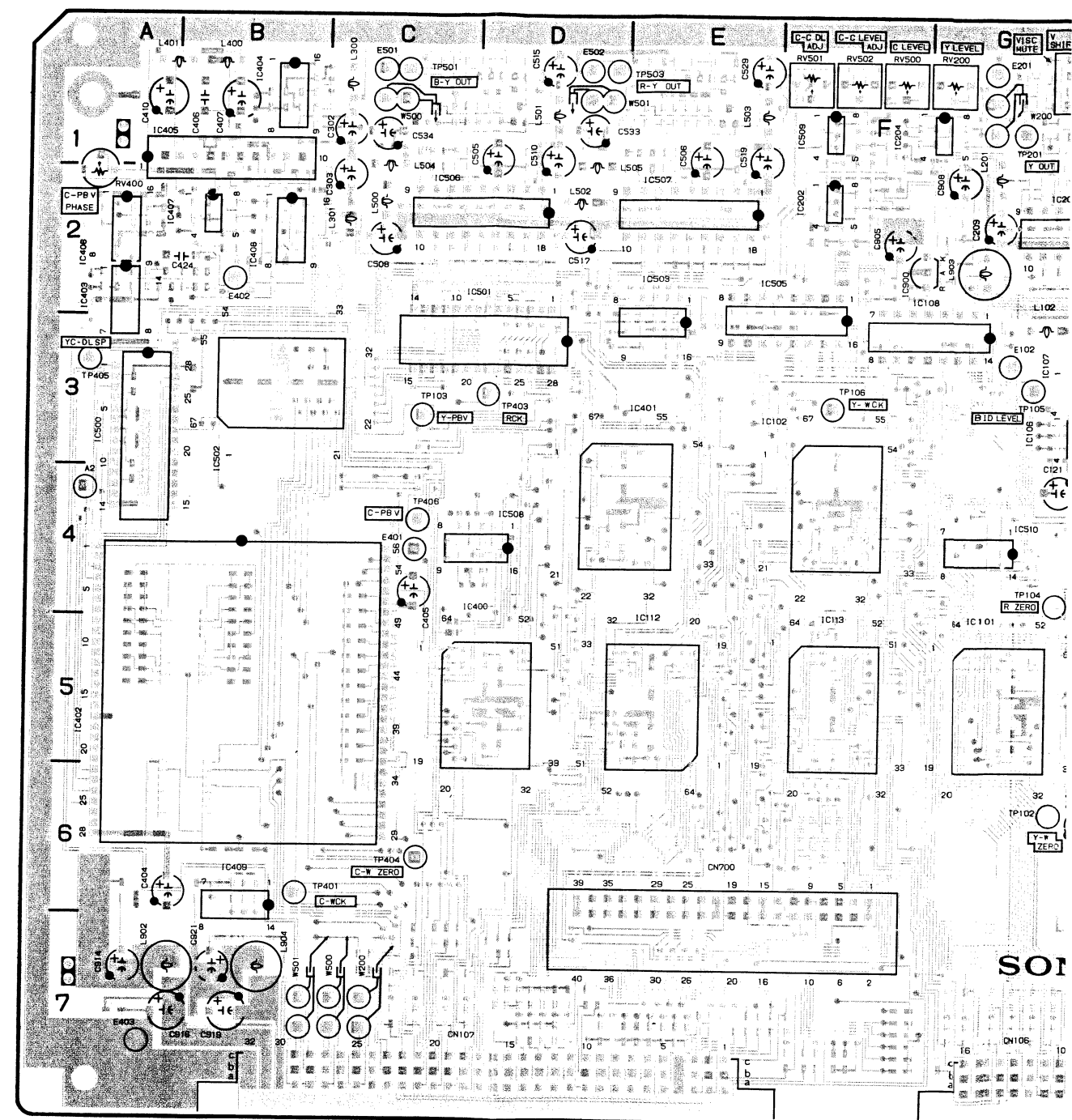
TBC-8P (1-622-549-14)

REF. NO	TYPE	PIN. NO				
		+12V	+5V	GND	-5V	-12V
IC 100	MC10H125M		9	16	8	
IC 101	CXD1022CQ		26.58	10.42		
IC 102	CXD1023AQ		27.61	1.11.44		
IC 103	SBX4001-01		28.51	17.35		
IC 104	TD62901P	13				3
IC 106	NJM4560M	8				4
IC 107	TL601CPS	8		1		5
IC 108	74F04PC		14	7		
IC 109	TC74HC04F		14	7		
IC 110	TC74HC04F		14	7		
IC 112	CXD1309BQ		26.58	10.42		
IC 113	CXD1326AQ		26.58	10.42		
IC 114	SN74LS157NS		16	8		
IC 200	CXK1202S		28	14		
IC 201	CXD1131Q		27.61	1.11.44		
IC 202	NJM4560M	8				4
IC 203	MB40778P		2.5.7.8	1.9		
IC 204	NJM4560M	8				4
IC 400	CXD1022CQ		26.58	10.42		
IC 401	CXD1023AQ		27.61	1.11.44		
IC 402	SBX4001-01		28.51	17.35		
IC 403	TC74HC86F		14	7		
IC 404	TC74HC221F		16	8		
IC 405	BX1461	8			3	
IC 406	TC4053BF		16	8	7	
IC 407	TL082CPS	8				4
IC 408	SN74LS221NS		16	8		
IC 409	TC74HC04F		14	7		
IC 500	CXK1202S		28	14		
IC 501	CXK1202S		28	14		
IC 502	CXD1131Q		27.61	1.11.44	8	
IC 503	MC10H125M		9	16	8	
IC 504	TC74HC00F		14	7		
IC 505	MC10198L			1.16	8	
IC 506	MB40778P		2.5.7.8	1.9		
IC 507	MB40778P		2.5.7.8	1.9		
IC 508	SN74LS221NS		16	8		
IC 509	NJM4560M	8				4
IC 510	TC74HC08F		14	7		
IC 512	TC74HC27F		14	7		
IC 900	TL431CLPB	*	*	*	*	*

TBC-8P (1-622-549-14)

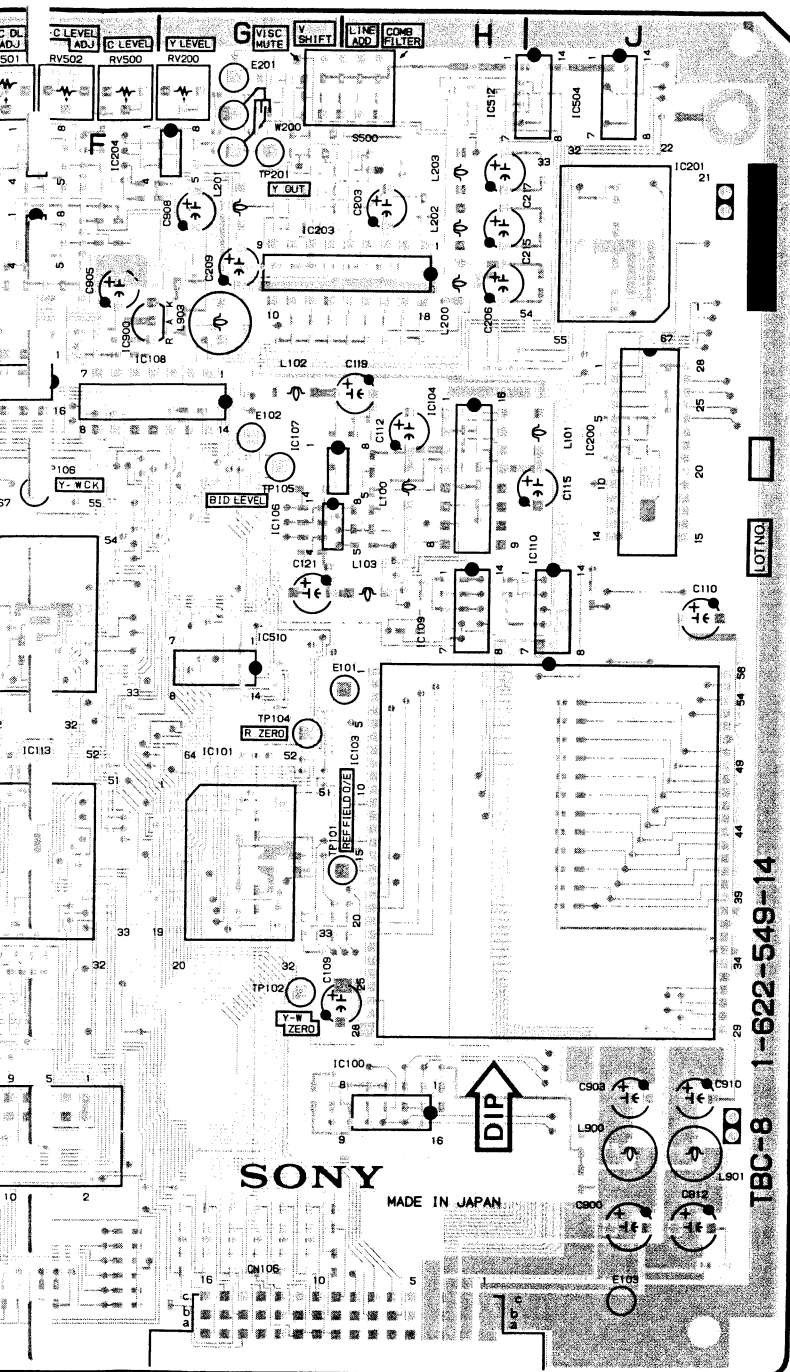
CN106	G-7	IC500	A-3
CN107	C-7	IC501	C-3
CN700	E-7	IC502	B-3
		IC503	E-3
		IC504	J-1
		IC505	E-3
		IC506	C-2
		IC507	E-2
		IC508	D-4
		IC509	F-1
		IC510	G-4
		IC512	J-1
		IC900	F-2
D201	G-1	Q201	G-2
D202	G-1	Q202	H-1
D400	B-2	Q203	G-1
D500	D-1	Q204	G-1
D501	E-1	Q205	G-1
		Q400	A-2
		Q401	B-2
		Q402	B-2
		Q500	C-1
		Q501	D-1
		Q502	D-1
		Q503	D-1
		Q504	E-1
		Q505	E-1
		Q900	G-2
		RV200	G-1
		RV400	A-1
		RV500	F-1
		RV501	F-1
		RV502	F-1
		S500	H-1
		SL101	G-5
		SL102	G-5
		SL103	F-4
		SL104	D-5
		SL105	E-5
		SL106	F-5
		SL107	F-6
		SL108	F-6
		SL109	F-6
		SL110	F-6
E101	H-4		
E102	G-3		
E103	J-7		
E201	G-1		
E401	C-4		
E402	B-2		
E403	A-7		
E501	C-1		
E502	D-1		
IC100	H-6		
IC101	G-5		
IC102	F-4		
IC103	J-5		
IC104	H-3		
IC106	G-3		
IC107	G-3		
IC108	F-3		
IC109	H-4		
IC110	J-4		
IC112	E-5		
IC113	F-5		
IC114	B-6		
IC200	J-3		
IC201	J-2		
IC202	F-2		
IC203	G-2		
IC204	G-1		
IC400	D-5		
IC401	D-4		
IC402	B-5		
IC403	A-2		
IC404	B-1		
IC405	B-1		
IC406	A-2		
IC407	B-2		
IC408	B-2		
IC409	B-6		

SL201	J-3
SL202	J-3
SL300	G-3
SL301	G-3
SL302	C-5
SL401	D-5
SL402	D-5
SL403	E-4
SL404	C-6
SL501	A-3
SL502	A-3
SL503	D-2
SL504	D-2
SL505	H-1
SL506	H-1
TP101	H-5
TP102	G-6
TP103	C-3
TP104	G-4
TP105	G-3
TP106	F-3
TP201	G-1
TP401	B-6
TP403	D-3
TP404	C-6
TP405	A-3
TP406	C-4
TP501	C-1
TP503	D-1



TBC-8P

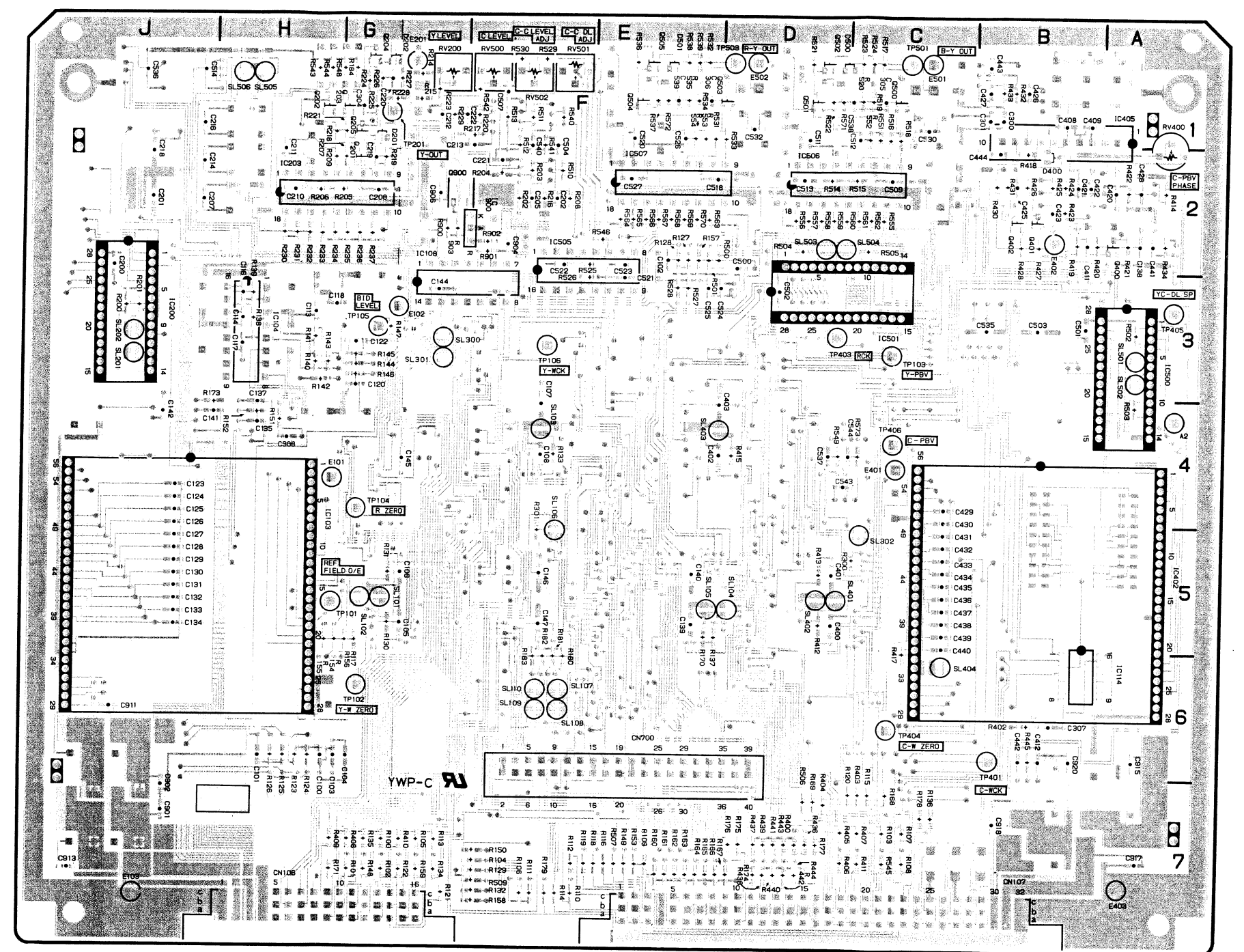
TBC-8P



TBC-8P — COMPONENT SIDE —

1-622-549-14  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

17-21(a)



TBC-8P — SOLDERING SIDE —

1-622-549-14  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

17-22(a)



## TBC-8P; TIME BASE CORRECTOR

S/N 10417 through 10769

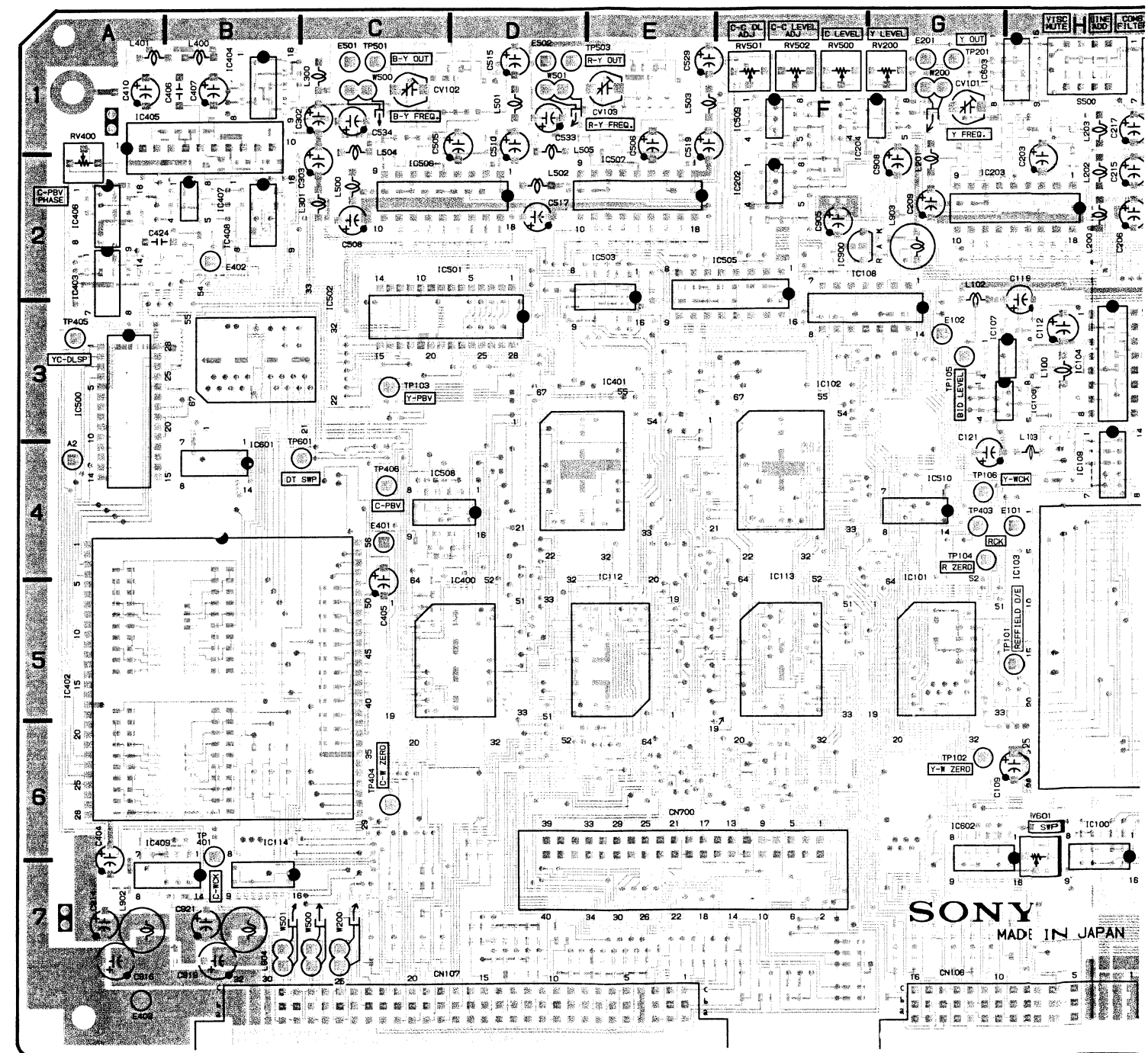
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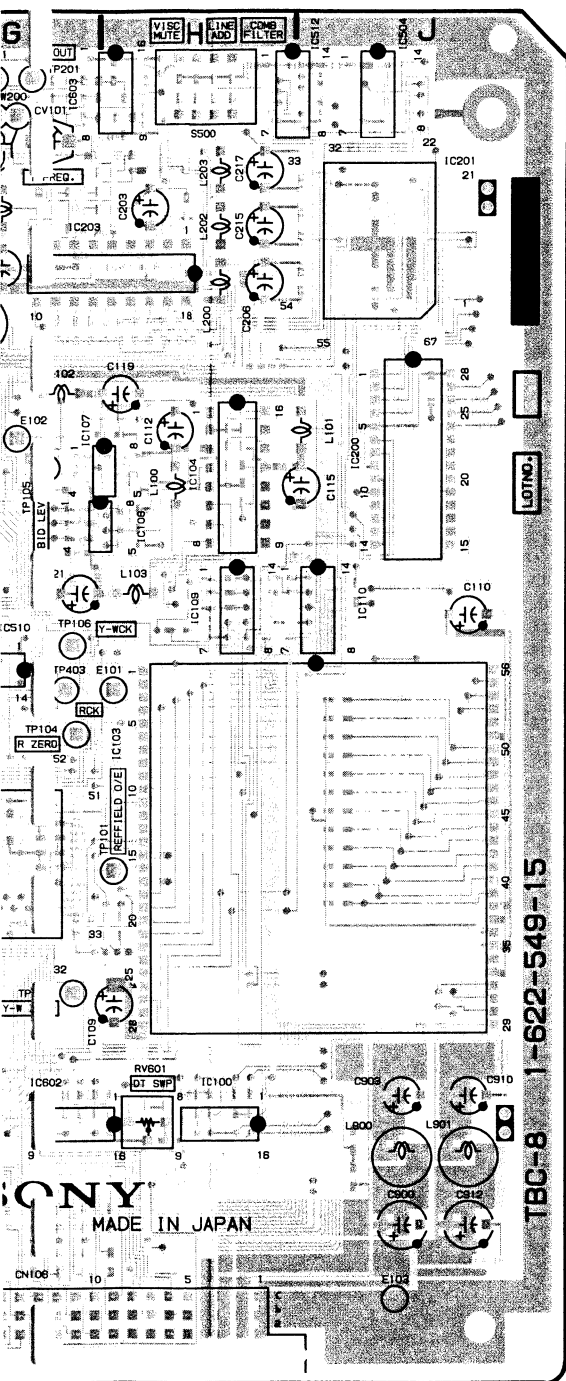
REF. NO.	TYPE	PIN. NO				
		+12V	+5V	GND	-5V	-12V
IC 100	MC10H125M		9	16	8	
IC 101	CXD1022CA		26.58	10.42		
IC 102	CXD1023AQ		27.61	1.11.44		
IC 103	SBX4001-01		28.51	17.35		
IC 104	TD62901P	13				3
IC 106	NJM4560M	8				4
IC 107	TL601CPS	8		1		5
IC 108	74F04PC		14	7		
IC 109	TC74HC04F		14	7		
IC 110	TC74HC04F		14	7		
IC 112	CXD1309BQ		26.58	10.42		
IC 113	CXD1326AQ		26.58	10.42		
IC 114	SN74LS157NS		16	8		
IC 200	CXK1202S		28	14		
IC 201	CXD1131Q		27.61	1.11.44		
IC 202	NJM4560M	8				4
IC 203	MB40778P		2.5.7.8	1.9		
IC 204	NJM4560M	8				4
IC 400	CXD1022CA		26.58	10.42		
IC 401	CXD1023AQ		27.61	1.11.44		
IC 402	SBX4001-01		28.51	17.35		
IC 403	TC74HC86F		14	7		
IC 404	TC74HC221F		16	8		
IC 405	BX1461	8			3	
IC 406	TC40538F		16	8	7	
IC 407	TL082CPS	8				4
IC 408	SN74LS221NS		16	8		
IC 409	TC74HC04F		14	7		
IC 500	CXK1202S		28	14		
IC 501	CXK1202S		28	14		
IC 502	CXD1131Q		27.61	1.11.44	8	
IC 503	MC10H125M		9	16	8	
IC 504	TC74HC00F		14	7		
IC 505	MC10196L			1.16	8	
IC 506	MB40778P		2.5.7.8	1.9		
IC 507	MB40778P		2.5.7.8	1.9		
IC 508	SN74LS221NS		16	8		
IC 509	NJM4560M	8				4
IC 510	TC74HC08F		14	7		
IC 512	TC74HC27F		14	7		
IC 900	TL431CLPB	*	*	*	*	*
IC 601	TC74HC74F		14	7		
IC 602	TC74HC221F		16	8		
IC 603	SN74LS157NS		16	8		

\* REFER TO SCHEMATIC

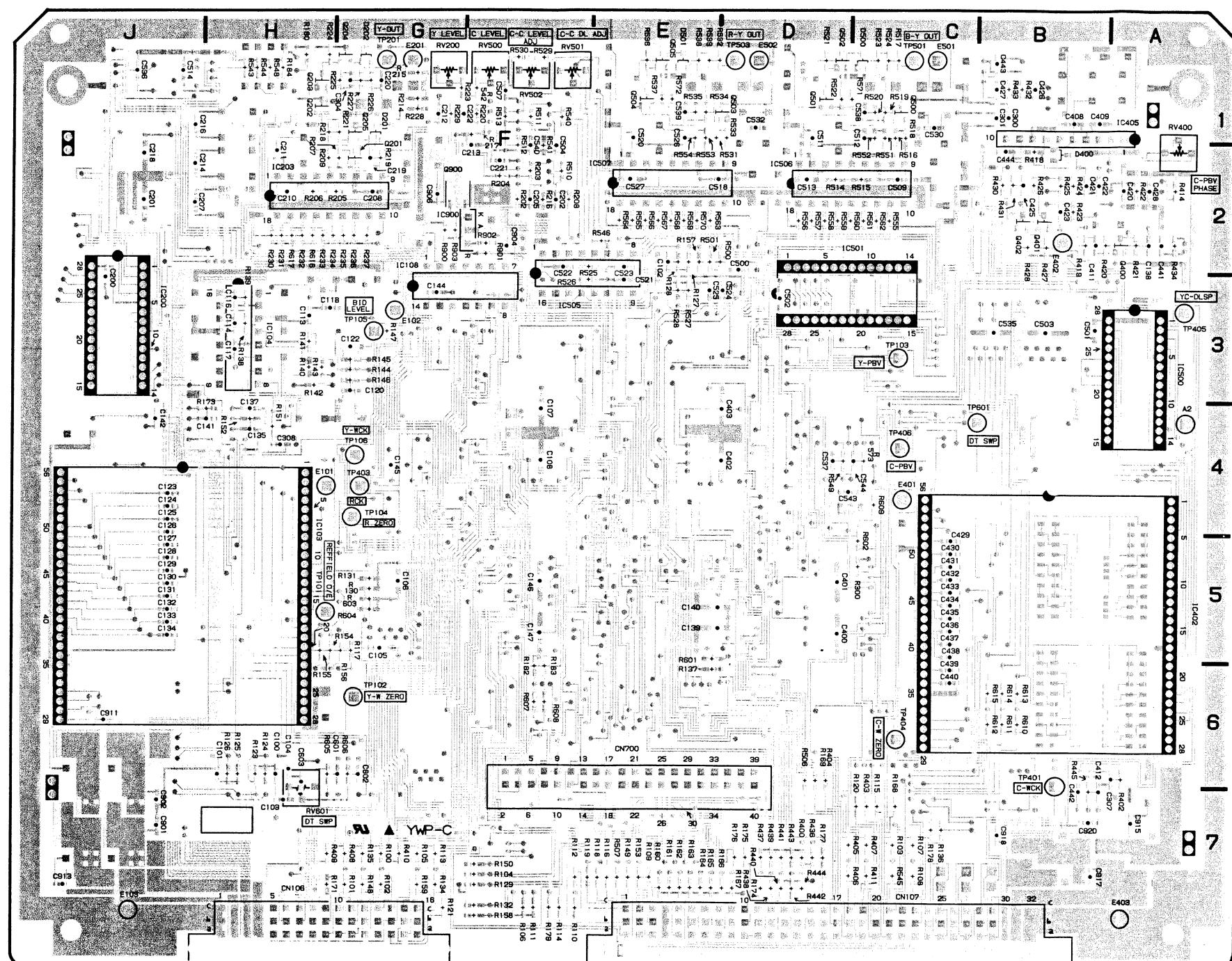
TBC-8P (1-622-549-15)

CN106	G-7	IC406	A-2	TP103	C-3
CN107	C-7	IC407	B-2	TP104	G-4
CN700	E-7	IC408	B-2	TP105	G-3
		IC409	A-7	TP106	G-4
CV101	G-1	IC500	A-3	TP201	G-1
CV102	C-1	IC501	C-3	TP401	B-6
CV103	E-1	IC502	B-3	TP403	G-4
		IC503	E-3	TP404	C-6
D201	G-1	IC504	J-1	TP405	A-3
D202	G-1	IC505	F-2	TP406	C-4
D400	B-2	IC506	C-2	TP503	C-1
D500	C-1	IC507	E-2	TP601	D-1
D501	E-1	IC508	D-4		B-4
		IC509	F-1		
E101	H-4	IC510	G-4		
E102	G-3	IC512	J-1		
E103	J-7	IC601	B-4		
E201	G-1	IC602	G-6		
E401	C-4	IC603	H-1		
E402	B-2	IC900	F-2		
E403	A-7				
E501	C-1	Q201	G-2		
E502	D-1	Q202	H-1		
		Q203	G-1		
		Q204	G-1		
		Q205	G-1		
IC100	H-6	Q400	A-2		
IC101	G-5	Q401	B-2		
IC102	F-4	Q402	B-2		
IC103	J-5	Q500	C-1		
IC104	H-3	Q501	D-1		
IC106	G-3	Q502	D-1		
IC107	G-3	Q503	D-1		
IC108	F-3	Q504	E-1		
IC109	H-4	Q505	E-1		
IC110	J-4	Q900	G-2		
IC112	E-5				
IC113	F-5				
IC114	B-6				
IC200	J-3	RV200	G-1		
IC201	J-2	RV400	A-1		
IC202	F-2	RV500	F-1		
IC203	G-2	RV501	F-1		
IC204	G-1	RV502	F-1		
IC400	D-5	RV601	H-6		
IC401	D-4				
IC402	B-5	S500	H-1		
IC403	A-2				
IC404	B-1	TP101	H-5		
IC405	B-1	TP102	G-6		





**TBC-8P** — COMPONENT SIDE —  
1-622-549-15  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



**TBC-8P** — SOLDERING SIDE —  
1-622-549-15  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

## TBC-12P; TIME BASE CORRECTOR

S/N 10770 and higher

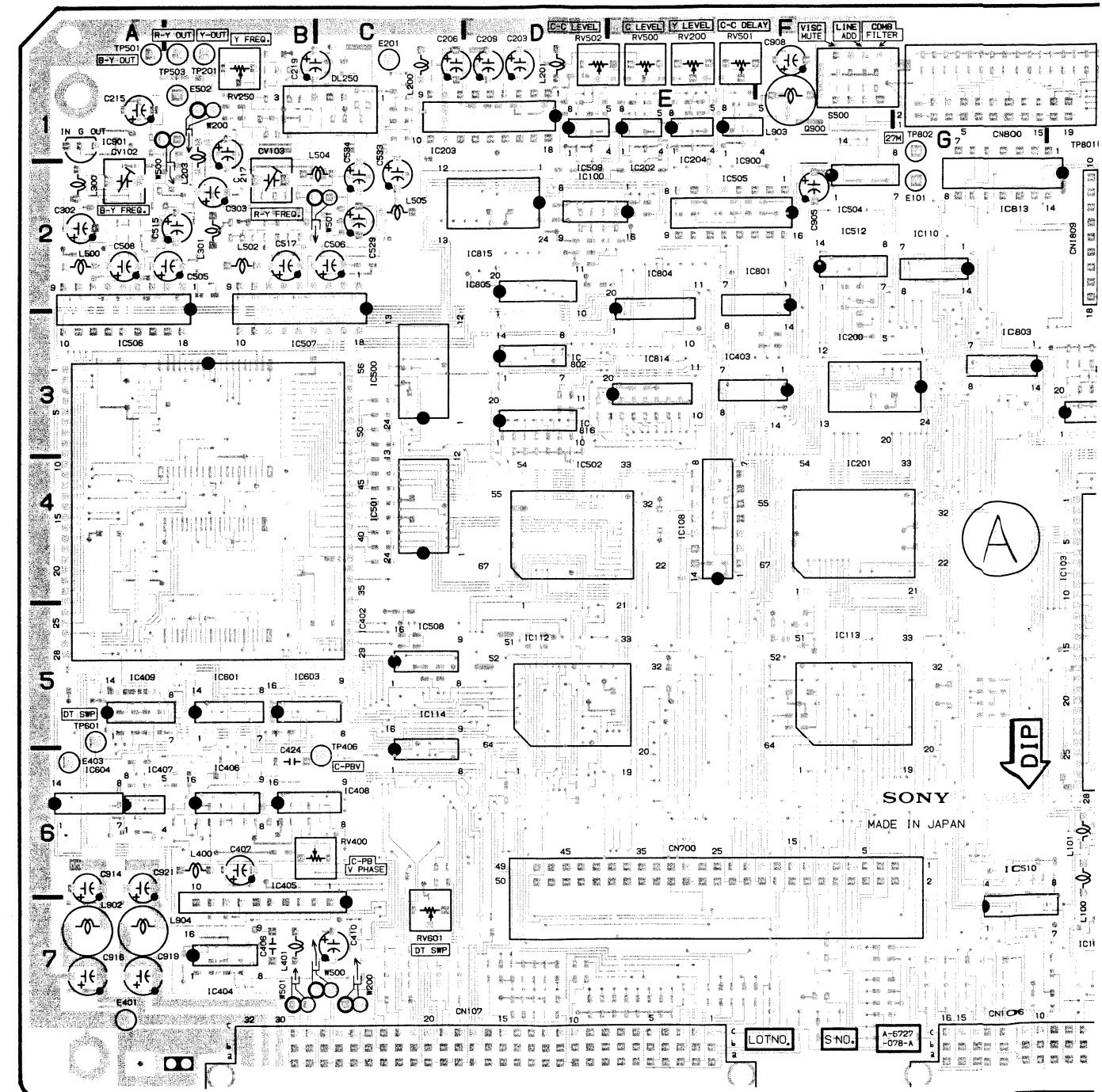
TBC-12P (1-629-462-11,12,13)

REF. NO.	TYPE	PIN. NO				
		+12V	+5V	GND	-5V	-12V
IC 100	MC10H125M		9	16	8	
IC 101	CXD8011Q		26.58	10.42		
IC 102	CXD1023AQ		27.61	1.11.44		
IC 103	SBX4001-01		28.51	17.35		
IC 104	TD62901P	13				3
IC 106	RC4560M	8				4
IC 107	TL601CPS	8		1		5
IC 108	74F04PC		14	7		
IC 109	TC74HC04F		14	7		
IC 110	TC74HC04F		14	7		
IC 112	CXD8024Q		26.58	10.42		
IC 113	CXD1326AQ		26.58	10.42		
IC 114	SN74LS157NS		16	8		
IC 200	μPD41101G-1		18	7		
IC 201	CXD1131Q		27.61	1.11.44		4
IC 202	RC4560M	8				
IC 203	MB40778P		2.5.7.8	1.9		
IC 204	RC4560M	8				4
IC 400	CXD8011Q		26.58	10.42		
IC 401	CXD1023AQ		27.61	1.11.44		
IC 402	SBX4001-01		28.51	17.35		
IC 403	TC74HC36F		14	7		
IC 404	TC74HC221F	8	16	8		
IC 405	BX1461				3	
IC 406	TC4053BF		16	8	7	
IC 407	TL082CPS	8				4
IC 408	SN74LS221NS		16	8		
IC 409	TC74HC04F		14	7		
IC 500	μPD41101G-1		18	7		
IC 501	μPD41101G-1		18	7		
IC 502	CXD1131Q		27.61	1.11.44	8	
IC 504	TC74HC00F		14	7	8	
IC 505	MC10198L			1.16		
IC 506	MB40778P		2.5.7.8	1.9		
IC 507	MB40778P		2.5.7.8	1.9		
IC 508	SN74LS221NS		16	8		
IC 509	RC4560M	8				4
IC 510	TC74HC08F		14	7		
IC 512	SN74HC32NS		14	7		
IC 601	TC74HC74F		14	7		
IC 603	SN74LS157NS		16	8		
IC 604	SN74LS164NS		9.14	7		
IC 801	SN74HC30NS		14	7		
IC 802	SN74HC30NS		14	7		
IC 803	SN74HC30NS		14	7		
IC 804	SN74HC574NS		20	10		
IC 805	SN74HC574NS		20	10		
IC 806	μPD41101G-1		18	7		
IC 807	SN74HC540NS		20	10		
IC 808	CXB1001G		81.82.85.86	83.84.87.88		
IC 809	MB7122H		18	9		
IC 810	MC10H124M		9	16	8	
IC 811	MC10H124M		9	16	8	
IC 812	MC10H124M		9	16	8	
IC 813	74F04PC		14	1		
IC 814	SN74HC574NS		20	10		
IC 815	μPD41101G-1		18	7		
IC 816	SN74HC574NS		20	10		
IC 900	TL431CLPC	*	*	*	*	*
IC 901	NJM78L09A	*	*	*	*	*

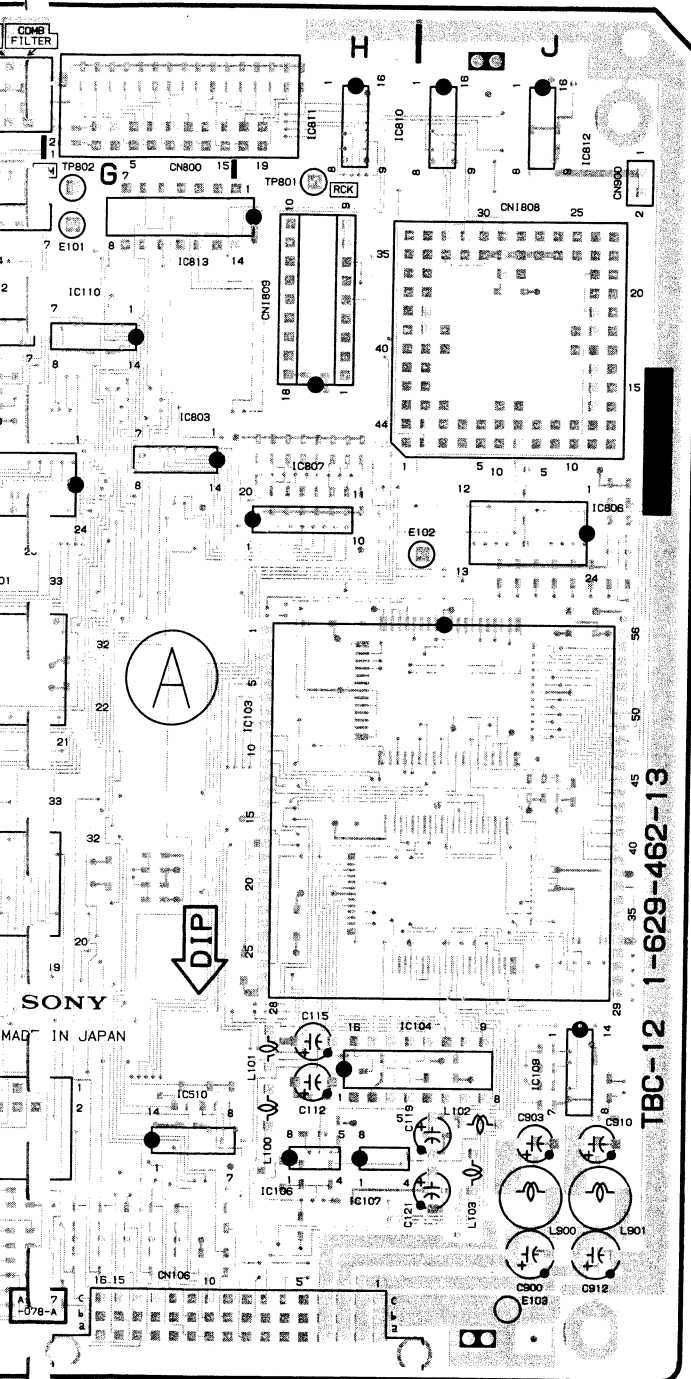
\* REFER TO SCHEMATIC

TBC-12P (1-629-462-11,12,13)

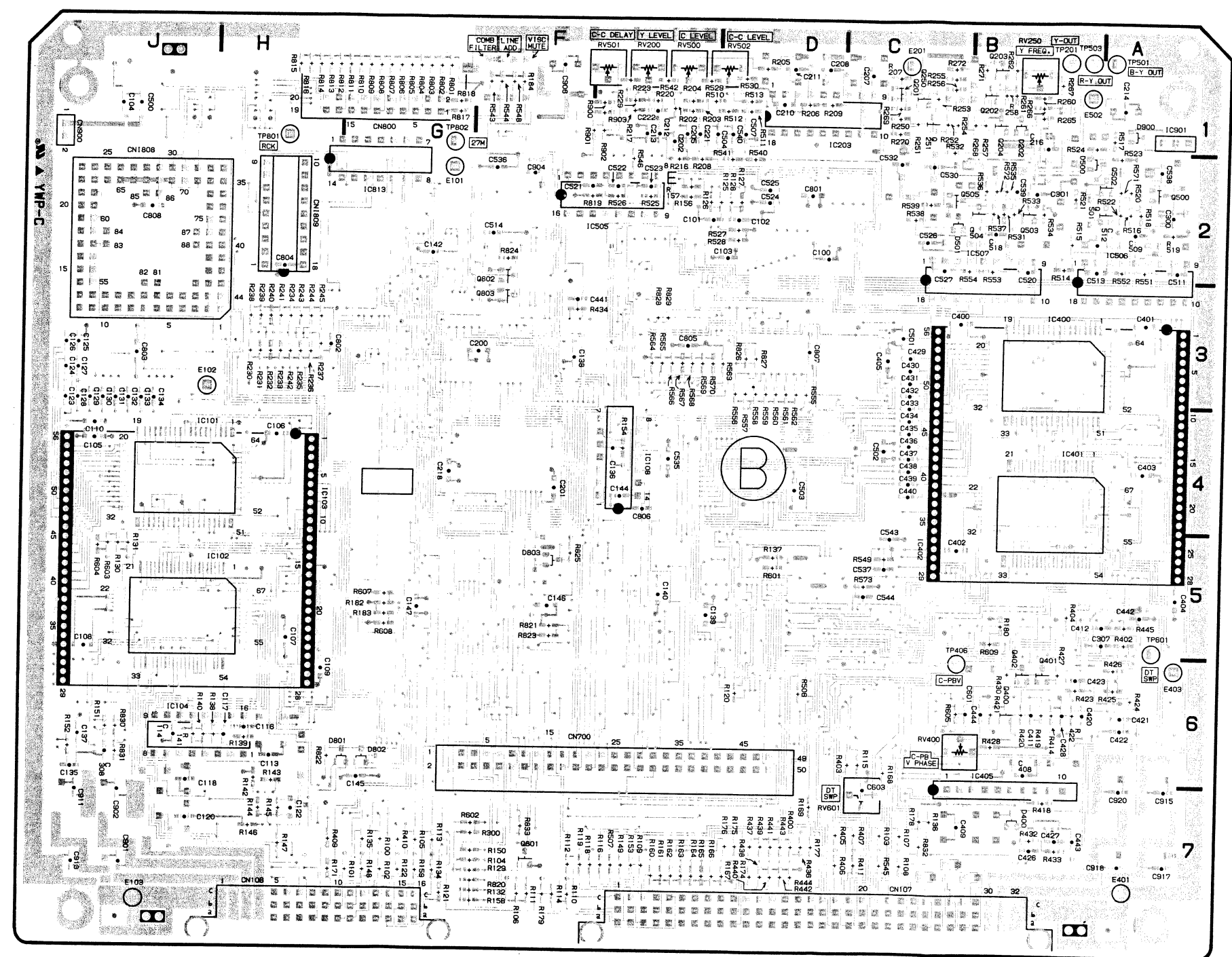
CN1808	J-2	IC601	B-5
CN1809	H-2	IC603	B-5
		IC604	A-6
CN106	H-7	IC801	E-2
CN107	C-7	IC802	D-1
CN700	E-6	IC803	G-3
CN800	G-1	IC804	E-2
CN900	J-1	IC805	D-2
		IC806	J-3
CV102	A-2	IC807	H-3
CV103	B-2	IC808	J-2
		IC809	H-2
D202	B-1	IC810	J-1
D400	B-7	IC811	H-1
D500	B-2	IC812	J-1
D501	C-2	IC813	G-2
D801	G-6	IC814	E-3
D802	G-6	IC815	D-2
D803	F-5	IC816	D-3
D900	A-1	IC900	E-1
		IC901	A-1
DL250	C-1	Q201	C-1
		Q202	B-1
E101	G-2	Q203	B-1
E102	J-3	Q204	B-1
E103	J-7	Q250	C-1
E201	C-1	Q251	C-1
E401	A-7	Q400	B-6
E403	A-6	Q401	B-6
E502	B-1	Q402	B-6
		Q500	A-2
IC100	D-2	Q501	A-2
IC101	J-4	Q502	A-2
IC102	J-5	Q503	B-2
IC103	J-5	Q504	B-2
IC104	J-6	Q505	B-2
IC106	H-7	Q801	F-7
IC107	H-7	Q802	F-2
IC108	E-4	Q803	F-3
IC109	J-6	Q900	F-1
IC110	G-2		
IC112	D-5		
IC113	F-5	RV200	E-1
IC114	C-6	RV250	B-1
IC200	F-3	RV400	C-6
IC201	F-4	RV500	E-1
IC202	E-1	RV501	E-1
IC203	D-1	RV502	D-1
IC204	E-1	RV601	C-7
IC400	B-3		
IC401	B-4	S500	F-1
IC402	B-4		
IC403	E-3		
IC404	B-7	TP201	B-1
IC405	B-7	TP406	C-6
IC406	B-6	TP501	A-1
IC407	A-6	TP503	B-1
IC408	B-6	TP601	A-5
IC409	A-5	TP801	H-1
IC500	C-3	TP802	G-1
IC501	C-4		
IC502	D-4		
IC504	F-2		
IC505	E-2		
IC506	A-2		
IC507	B-2		
IC508	C-5		
IC509	D-1		
IC510	G-7		
IC512	F-2		







**TBC-12P—COMPONENT SIDE—**  
 1-629-462-11,12,13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P



**TBC-12P—SOLDERING SIDE—**  
 1-629-462-11,12,13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

TBC-9P; TIME BASE CORRECTOR  
NR-25; Y DIGITAL NOISE REDUCTION

TBC-9P (1-622-550-13)

REF. NO.	TYPE	PIN. NO				
		+12V	+5V	GND	-5V	-12V
IC 1	TC74HC00F	1	14	7		
IC 2	CX20061		2	5		
IC 4	CX7998		16	16		
IC 5	TC4053BF		28	7.8		
IC 6	CX7930A		16	14		
IC 7	TC74HC221F		16	8		
IC 8	TC74HC74F		14	7		
IC 9	TC74HC221F		16	8		
IC 10	CX7930A		28	14		
IC 11	TC74HC86F		14	7		
IC 12	TL082CPS	8	16	8		4
IC 13	SN74LS123NS		14	7		8
IC 14	NJM1496M		2	3		
IC 16	TC74HC32F		16	8		4
IC 17	μPC393G2		*	*	*	*
IC 18	TL082CPS		2	16		
IC 19	TC74HC123F		27.61	1.11.44		
IC 20	TL431CLPB					
IC 21	CX7998					
IC 22	CXD1024Q					
IC 23	CX7930A	28	14	7		
IC 24	CX20162		14	7		
IC 25	74F74PC		14	7		
IC 26	TC74HC08F		14	7		
IC 27	TC74HC74F		14	7		
IC 28	TC74HC04F		20	10		
IC 29	TC74HC244F		14	7		
IC 30	SN74LS164NS		9	16	8	
IC 31	MC10H124M		20	10		
IC 32	TC74HC244F					
IC 33	TC74HC123F	16	8	7		
IC 34	SN74LS11NS		14	7		
IC 35	TC74HC86F		14	7		
IC 36	SN74LS164NS		14	7		
IC 37	TL431CLPB		*	*	*	*
IC 38	TC74HC74F		14	7		
IC 40	TC74HC74F		14	7		
IC 41	SN74LS221NS		16	8		
IC 42	SN74LS221NS		16	8		
IC 200	MB4002PF	8	1			*
IC 201	TL082CPS		1			4
IC 202	TL061CPS		3.8			5
IC 203	μPC319G2		8			6
IC 204	TC74HC221F		16			

\* REFER TO SCHEMATIC

NR-25 (1-624-023-12)

REF. NO.	TYPE	PIN NO.	
		+5V	GND
IC 701	CXD1328Q	33.73	12.52
IC 702	CXK1202S	28	14
IC 703	CXK1202S	28	14
IC 704	CXK1202S	28	14
IC 705	SN74HC161NS	16	8
IC 706	SN74HC161NS	16	8
IC 707	SN74HC240NS	20	10

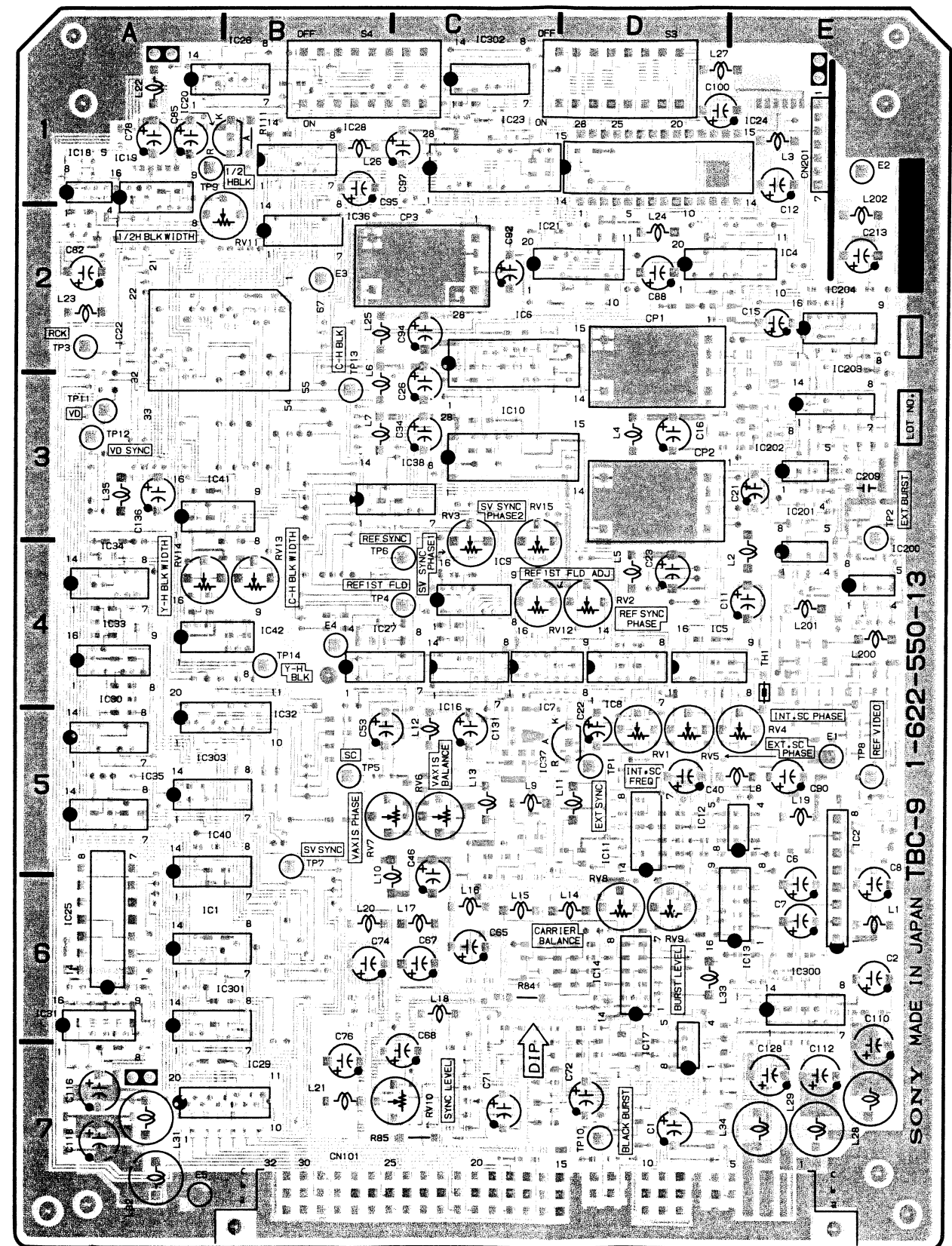
NR-25 (1-624-023-12)

CN701	B-3
D701	C-2
D702	C-3
EP701	C-2
IC701	A-2
IC702	B-1
IC703	C-1
IC704	C-2
IC705	B-3
IC706	C-3
IC707	B-2

TP701	A-1
TP702	A-2
TP703	A-2
TP704	A-2

TBC-9P (1-622-550-13)

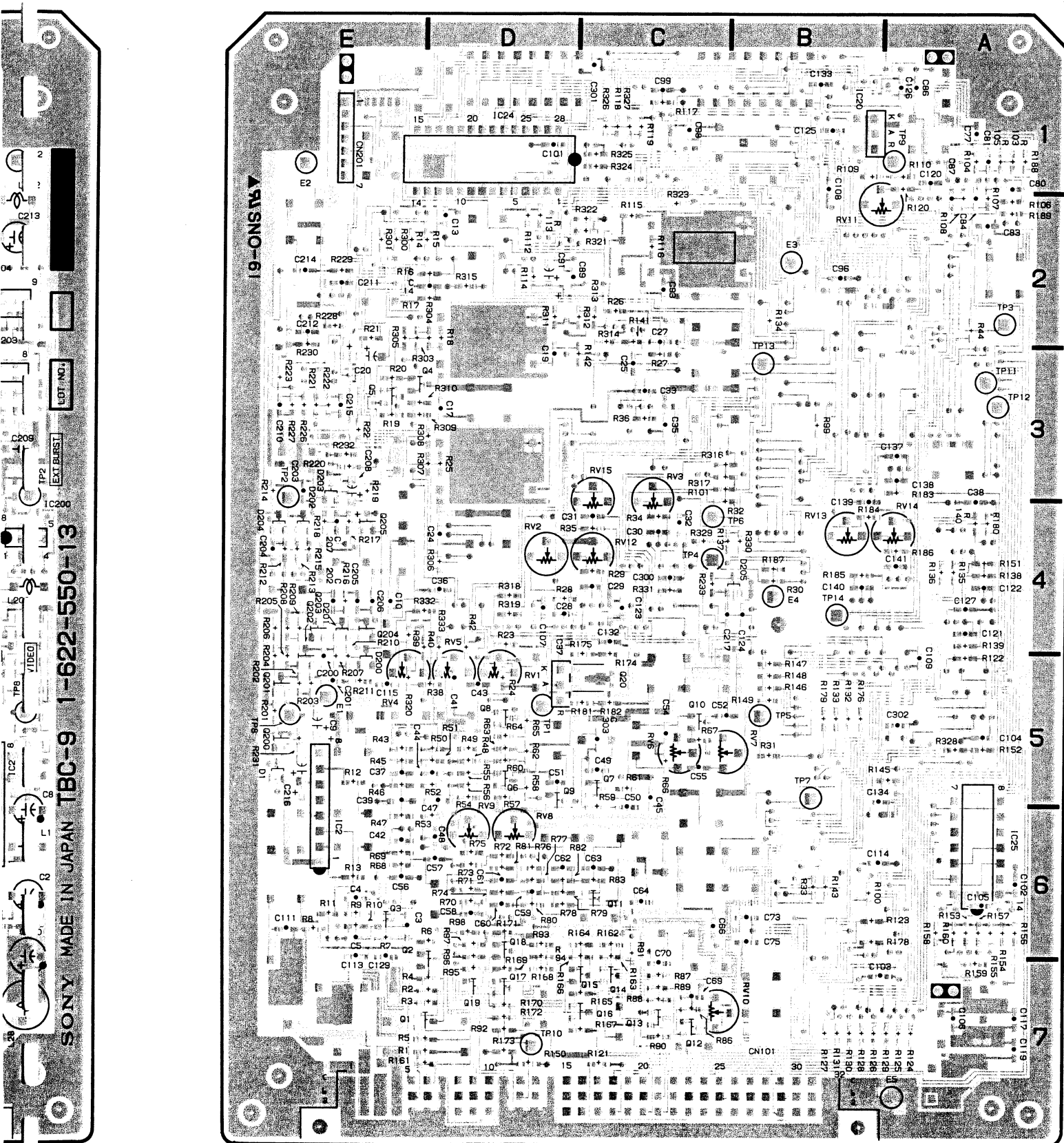
CN101	C-7	IC300	E-6
CN201	E-1	IC301	A-6
		IC302	C-1
		IC303	A-5
CP1	D-3	Q1	E-7
CP2	D-3	Q2	E-7
CP3	C-2	Q3	E-6
		Q4	E-3
D1	E-5	Q5	E-3
D200	E-5	Q6	D-5
D201	E-4	Q7	C-5
D202	E-3	Q8	D-5
D203	E-3	Q9	D-5
D204	E-4	Q10	C-5
D205	B-4	Q11	C-6
		Q12	C-7
E1	E-5	Q13	C-7
E2	E-1	Q14	C-7
E3	B-2	Q15	D-7
E4	B-4	Q16	D-7
E5	B-7	Q17	D-7
		Q18	D-6
		Q19	D-7
IC1	A-6	Q20	D-5
IC2	E-6	Q200	E-5
IC4	E-2	Q201	E-5
IC5	D-4	Q202	E-5
IC6	C-2	Q203	E-4
IC7	D-4	Q204	E-4
IC8	D-4	Q205	E-4
IC9	C-4		
IC10	C-3		
IC11	D-5		
IC12	E-5		
IC13	E-6	RV1	D-5
IC14	D-6	RV2	D-4
IC16	C-4	RV3	C-4
IC17	D-7	RV4	E-5
IC18	A-1	RV5	D-5
IC19	A-1	RV6	C-5
IC20	B-1	RV7	C-5
IC21	D-2	RV8	D-6
IC22	B-2	RV9	D-6
IC23	C-1	RV10	C-7
IC24	D-1	RV11	B-2
IC25	A-6	RV12	C-4
IC26	B-1	RV13	B-4
IC27	C-4	RV14	B-4
IC28	B-1	RV15	C-3
IC29	B-7		
IC30	A-5	S3	D-1
IC31	A-6	S4	B-1
IC32	B-4		
IC33	A-4	TH1	E-4
IC34	A-4		
IC35	A-5	TP1	D-5
IC36	B-2	TP2	E-4
IC37	D-5	TP3	A-2
IC38	C-3	TP4	C-4
IC40	A-5	TP5	B-5
IC41	B-3	TP6	C-4
IC42	B-4	TP7	B-6
IC200	E-4	TP8	E-5
IC201	E-4	TP9	A-1
IC202	E-3	TP10	D-7
IC203	E-3	TP11	A-3
IC204	E-2	TP12	A-3

TP13 B-3  
TP14 B-4

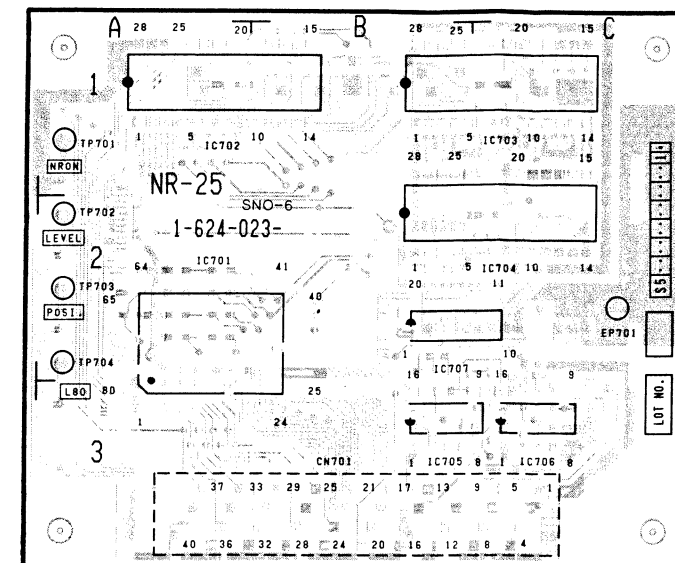
TBC-9P — COMPONENT SIDE —

1-622-550-13  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

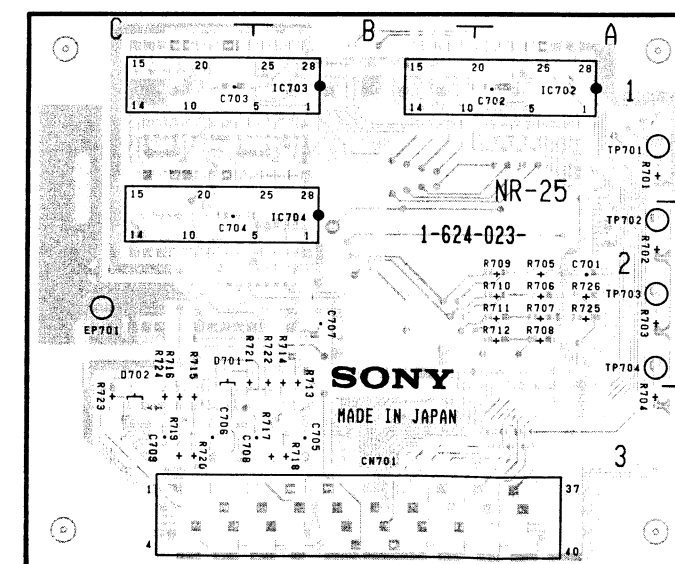
S/N 10061 through 10769



**TBC-9P** — SOLDERING SIDE —  
 1-622-550-13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



**NR-25** — COMPONENT SIDE —  
 1-624-023-12  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



**NR-25** — SOLDERING SIDE —  
 1-624-023-12  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

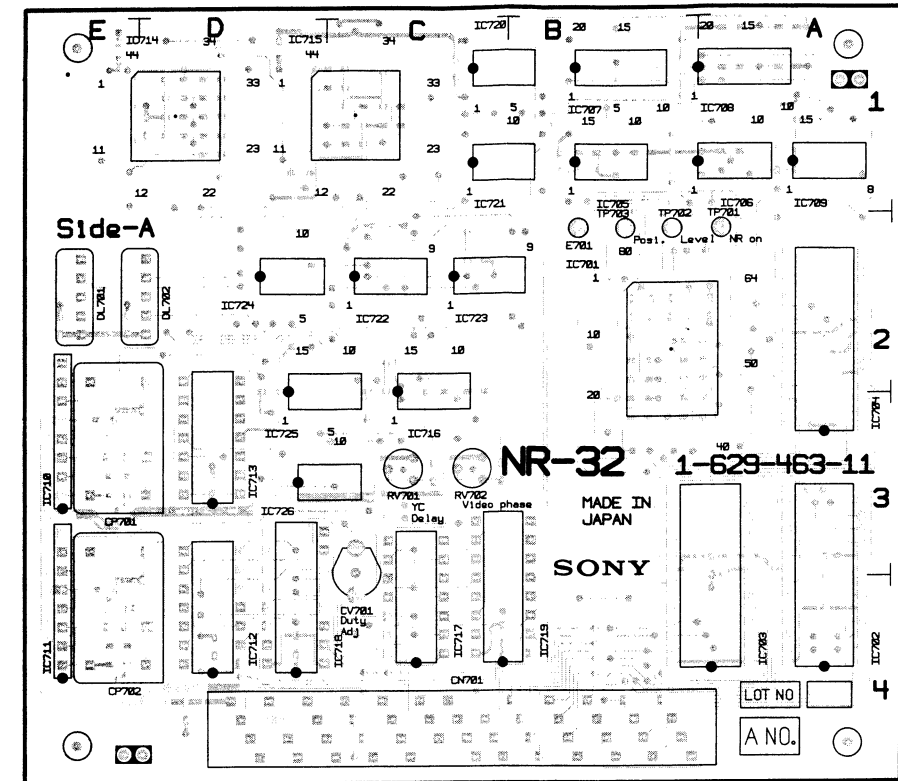


NR-32 (1-629-463-11)

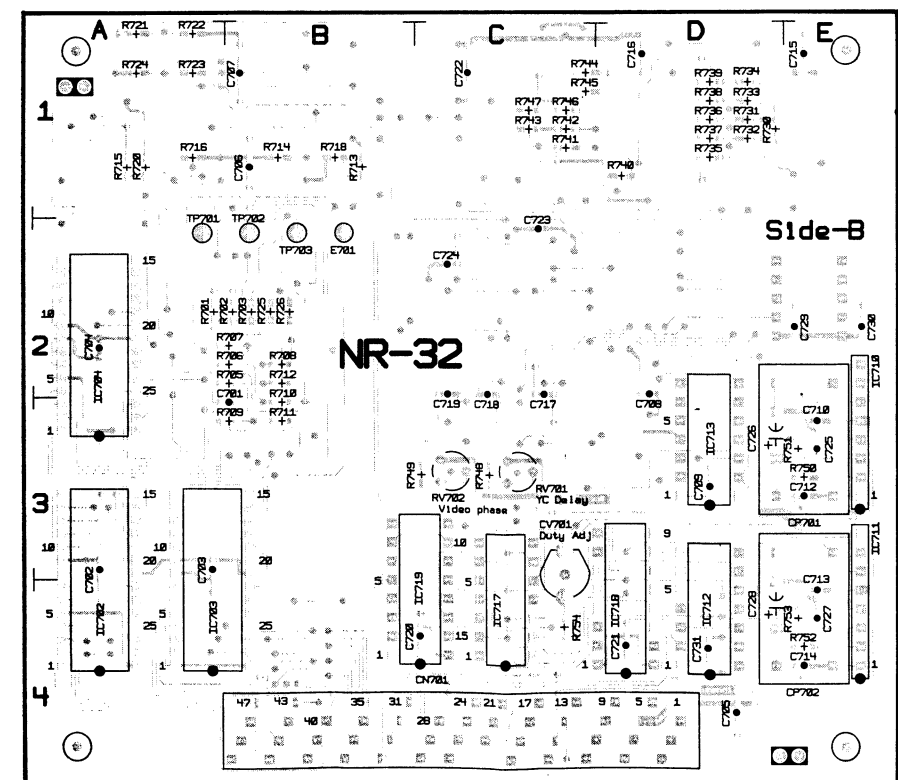
REF. NO.	TYPE	PIN NO.	
		+5V	GND
IC 701	CXD13280	33.73	12.52
IC 702	CXK1202S	28	14
IC 703	CXK1202S	28	14
IC 704	CXK1202S	28	14
IC 705	SN74HC161NS	16	8
IC 706	SN74HC161NS	16	8
IC 707	SN74HC240NS	20	10
IC 708	SN74HC273NS	1.20	10
IC 709	SN74HC161NS	16	8
IC 710	CX23065	5	8
IC 711	CX23065	5	8
IC 712	74F04PC	14	7
IC 713	74F74PC	14	7
IC 714	CXD1045AQ	17.39	1.6.28
IC 715	CXD1045AQ	17.39	1.6.28
IC 716	SN74LS221NS	16	8
IC 717	74F32PC	14	7
IC 718	74F175PC	16	8
IC 719	74F163APC	16	8
IC 720	SN74HC74NS	14	7
IC 721	SN74LS164NS	9.14	7
IC 722	SN74HC161NS	16	8
IC 723	SN74HC161NS	16	8
IC 724	SN74HC00NS	14	7
IC 725	SN74LS158NS	16	8
IC 726	SN74LS164NS	9.14	7

NR-32 (1-629-463-11)

CN701	C-4
CP701	E-3
CP702	E-4
CV701	C-3
DL701	E-2
DL702	E-2
E701	B-2
IC701	B-2
IC702	A-3
IC703	A-3
IC704	A-2
IC705	B-1
IC706	A-1
IC707	B-1
IC708	A-1
IC709	A-1
IC710	E-3
IC711	E-4
IC712	D-4
IC713	D-3
IC714	D-1
IC715	C-1
IC716	C-2
IC717	C-4
IC718	D-4
IC719	C-4
IC720	C-1
IC721	C-1
IC722	C-2
IC723	C-2
IC724	D-2
IC725	D-2
IC726	C-3
RV701	C-3
RV702	C-3
TP701	A-2
TP702	B-2
TP703	B-2



NR-32—COMPONENT SIDE—  
1-629-463-11  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P



NR-32—SOLDERING SIDE—  
1-629-463-11  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

EN-48P (1-622-546-14,15)

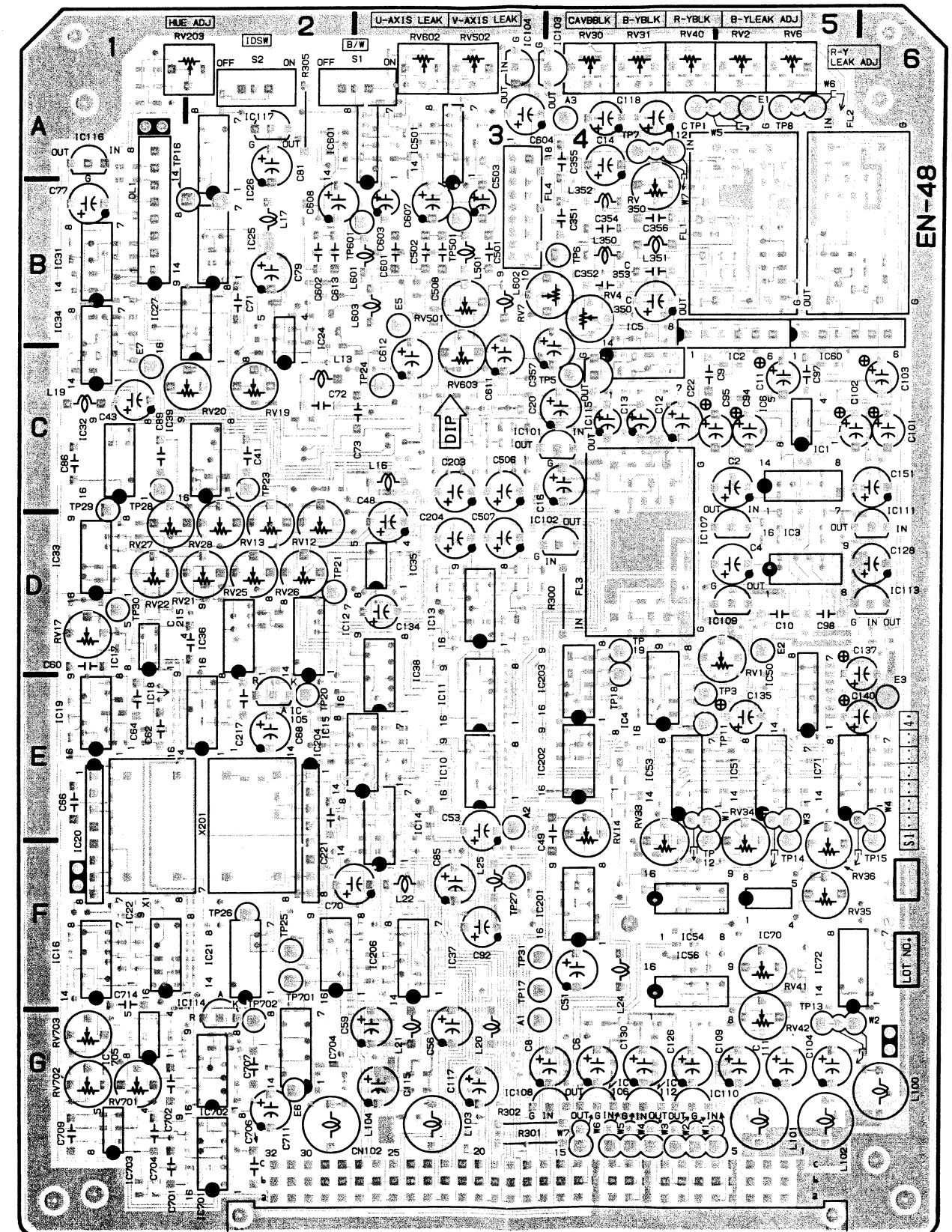
REF. NO.	TYPE	PIN NO.							
		+12V	+9V	+8V	+5V	GND	-5V	-8V	-12V
IC 1	MC34184M			4	6	8	1	11	
IC 2	VA UNIT								
IC 3	MC14503BF		16		16	2.10	5		
IC 4	CX20017				12	5.7.10	1		
IC 5	CX20158								
IC 6	TL082CPS			8				4	
IC 10	MC10H124M				9	16	8		
IC 11	MC10H131M					1.16	8		
IC 12	SN74LS00NS				14	7			
IC 13	MC10H113M					1.16	8		
IC 14	TC74HC04F				14	7			
IC 15	MC74HC11F				14	7			
IC 16	SN74LS74ANS				14	7			
IC 17	TL082CPS	8						4	
IC 18	TC74HC123F				16	8			
IC 19	SN74LS221NS				16	8			
IC 20	CX23065A				5	8			
IC 21	SN74LS04NS				14	7			
IC 22	SN74LS163ANS				16	8			
IC 24	MB4002PF	8					4		
IC 25	SN74LS74ANS				14	7			
IC 26	SN74LS06NS				14	7			
IC 27	SN74LS221NS				16	8			
IC 31	SN74LS74ANS				14	7			
IC 32	SN74LS221NS				16	8			
IC 33	SN74LS221NS				16	8			
IC 34	TC74HC74F				14	7			
IC 35	TL082CPS		8				4		
IC 36	SN74LS221NS				16	8			
IC 37	SN74LS32NS				14	7			
IC 38	TC4053BF				16	8	7		
IC 39	TC74HC221F				16	8			
IC 50	MC34184M				4		11		
IC 51	CX20158				12	5.7.10	1		
IC 52	VA UNIT				6		1		
IC 53	CX20158				12	5.7.10	1		
IC 54	TC14053BF				16	8			
IC 55	VA UNIT				6		1		
IC 60	VA UNIT				6		1		
IC 70	TL082CPS				8		4		
IC 71	CX20158				12	5.7.10			
IC 72	CX20158				14	5.7.10	1		
IC 101	NJM78L09A	*	*	*	*	*	*	*	*
IC 102	NJM78L05A	*	*	*	*	*	*	*	*
IC 103	S-81230AG	*	*	*	*	1	*	*	*
IC 104	S-80230AG	*	*	*	*	1	*	*	*
IC 105	TL431CLPB	*	*	*	*	*	*	*	*
IC 106	NJM78L05A	*	*	*	*	*	*	*	*
IC 107	NJM78L08A	*	*	*	*	*	*	*	*
IC 108	NJM79L05A	*	*	*	*	*	*	*	*
IC 109	NJM79L08A	*	*	*	*	*	*	*	*
IC 110	NJM78L05A	*	*	*	*	*	*	*	*
IC 111	NJM78L08A	*	*	*	*	*	*	*	*
IC 112	NJM79L05A	*	*	*	*	*	*	*	*
IC 113	NJM79L08A	*	*	*	*	*	*	*	*
IC 114	TL431CLPB	*	*	*	*	*	*	*	*
IC 115	NJM79L08A	*	*	*	*	*	*	*	*
IC 116	NJM78L05A	*	*	*	*	*	*	*	*
IC 117	NJM79L05A	*	*	*	*	*	*	*	*
IC 201	MC10H124M			9	16	8			
IC 202	MC10H131M					1.16	8		
IC 203	MC10H113M					1.16	8		
IC 204	CX23065A				5	8			
IC 206	SN74LS163ANS				16	8			
IC 501	NJM1496M								14
IC 601	NJM1496M								14
IC 701	TC74HC123F		*			8			
IC 702	SN74LS123NS		*			8			
IC 703	TL082CPS	8							4
IC 704	SN74LS74ANS		*			7			
IC 705	TL082CPS	8							4

\* REFER TO SCHEMATIC

EN-48P (1-622-546-14,15)

CN102	G-3	IC115	C-4	RV602	A-3
D1	B-1	IC116	A-1	RV603	C-3
DL1	B-1	IC117	A-2	RV701	G-1
		IC127	D-2	RV702	G-1
		IC201	F-4	RV703	G-1
E1	A-5	IC202	E-4		
E2	D-5	IC203	D-4	S1	A-3
E3	E-6	IC204	E-2	S2	A-2
E5	B-3	IC206	F-2		
E6	G-2	IC501	A-3	SL1	F-5
E7	B-1	IC601	A-3	SL2	E-6
		IC701	G-2	SL350	C-4
FL1	B-5	IC702	G-2	SL351	C-4
FL2	B-6	IC703	G-1	SL601	C-3
FL3	D-4	IC704	G-2		
FL4	A-4	IC705	G-1		
				TP1	A-5
IC1	C-5	Q1	A-5	TP3	D-5
IC2	B-5	Q2	B-5	TP5	B-5
IC3	D-5	Q3	D-4	TP6	B-4
IC4	D-4	Q4	B-4	TP7	A-4
IC5	B-4	Q6	B-6	TP8	A-5
IC6	C-5	Q7	B-5	TP11	E-5
IC10	E-3	Q8	B-5	TP12	F-5
IC11	D-3	Q9	B-4	TP13	F-5
IC12	D-2	Q10	B-4	TP14	F-5
IC13	D-3	Q11	A-5	TP15	E-6
IC14	E-3	Q12	E-4	TP16	A-2
IC15	E-3	Q13	E-5	TP17	F-4
IC16	F-1	Q14	B-4	TP18	D-4
IC17	D-1	Q15	B-5	TP19	D-4
IC18	E-2	Q17	B-5	TP20	D-2
IC19	E-1	Q18	A-5	TP21	D-2
IC20	E-1	Q25	B-1	TP22	C-2
IC21	F-2	Q501	B-3	TP23	C-3
IC22	F-1	Q502	A-4	TP24	C-3
IC24	B-2	Q503	C-3	TP25	F-2
IC25	B-2	Q504	C-4	TP26	F-2
IC26	A-2	Q601	B-3	TP27	F-4
IC27	B-2	Q602	A-3	TP28	C-1
IC31	B-1	Q603	A-4	TP29	C-1
IC32	C-1	Q604	C-3	TP30	D-1
IC33	D-1	Q605	C-3	TP31	F-4
IC34	B-1			TP501	B-3
IC35	D-3	RV1	C-5	TP601	B-3
IC36	D-2	RV2	A-5	TP701	F-2
IC37	F-3	RV4	A-4	TP702	F-2
IC38	D-3	RV6	A-5		
IC39	C-2	RV7	B-3	X1	E-1
IC50	D-5	RV12	C-2	X201	E-2
IC51	E-5	RV13	C-2		
IC53	E-5	RV14	E-4		
IC54	E-5	RV17	D-1		
IC56	E-5	RV19	C-2		
IC60	B-6	RV20	C-2		
IC70	E-5	RV21	D-2		
IC71	E-6	RV22	D-1		
IC72	F-6	RV25	D-2		
IC101	C-4	RV26	D-2		
IC102	D-4	RV27	C-2		
IC103	A-4	RV28	C-2		
IC104	A-4	RV30	A-4		
IC105	D-2	RV31	A-4		
IC106	G-4	RV33	F-5		
IC107	C-5	RV34	F-5		
IC108	G-4	RV35	F-5		
IC109	D-5	RV40	A-4		
IC110	G-5	RV41	F-6		
IC111	C-6	RV42	F-5		
IC112	G-4	RV203	A-2		
IC113	D-6	RV350	B-2		
IC114	F-2	RV501	B-3		
		RV502	A-3		

EN-48P; C ENCODER



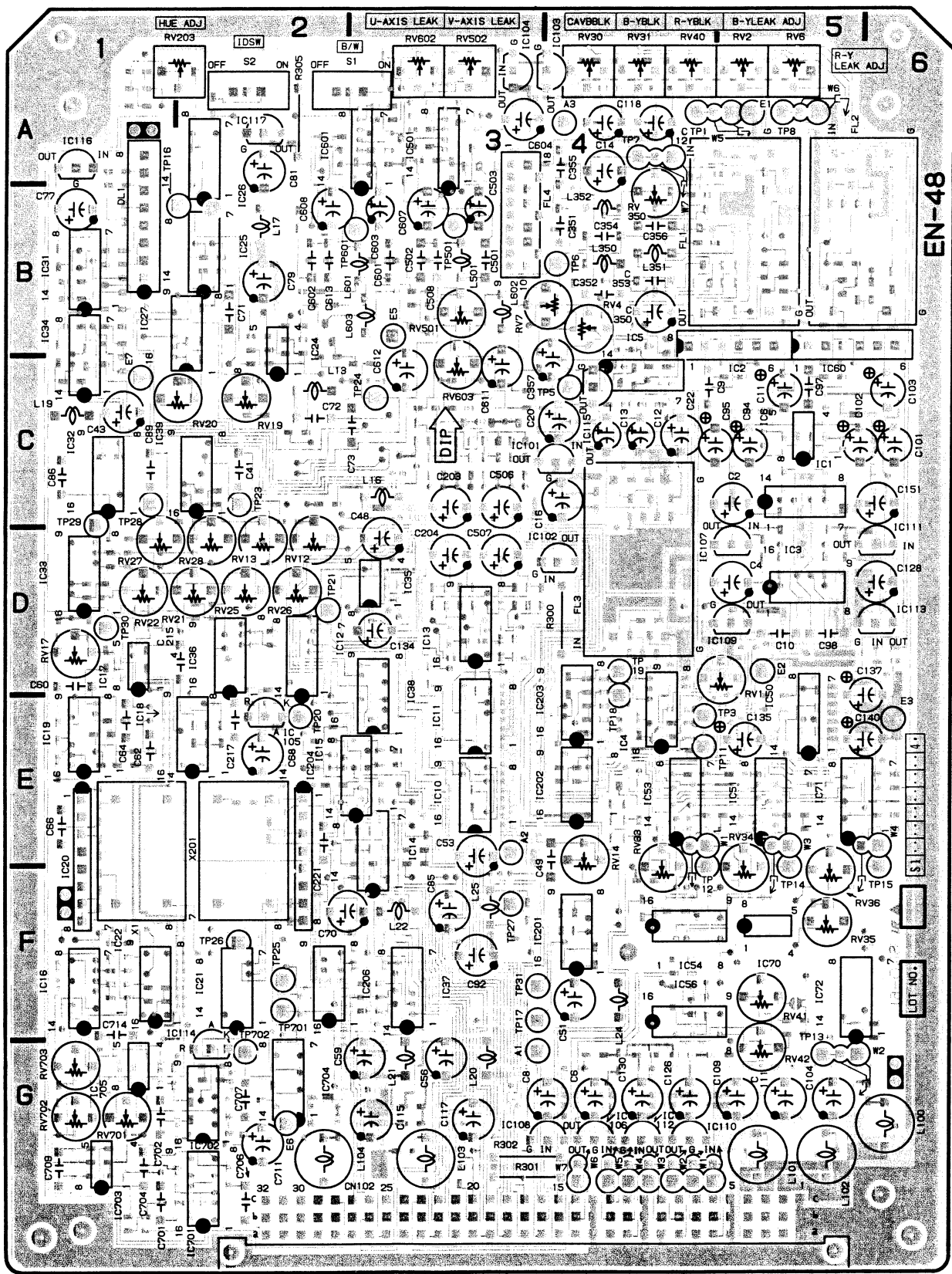
EN-48P—COMPONENT SIDE—

1-622-546-14,15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

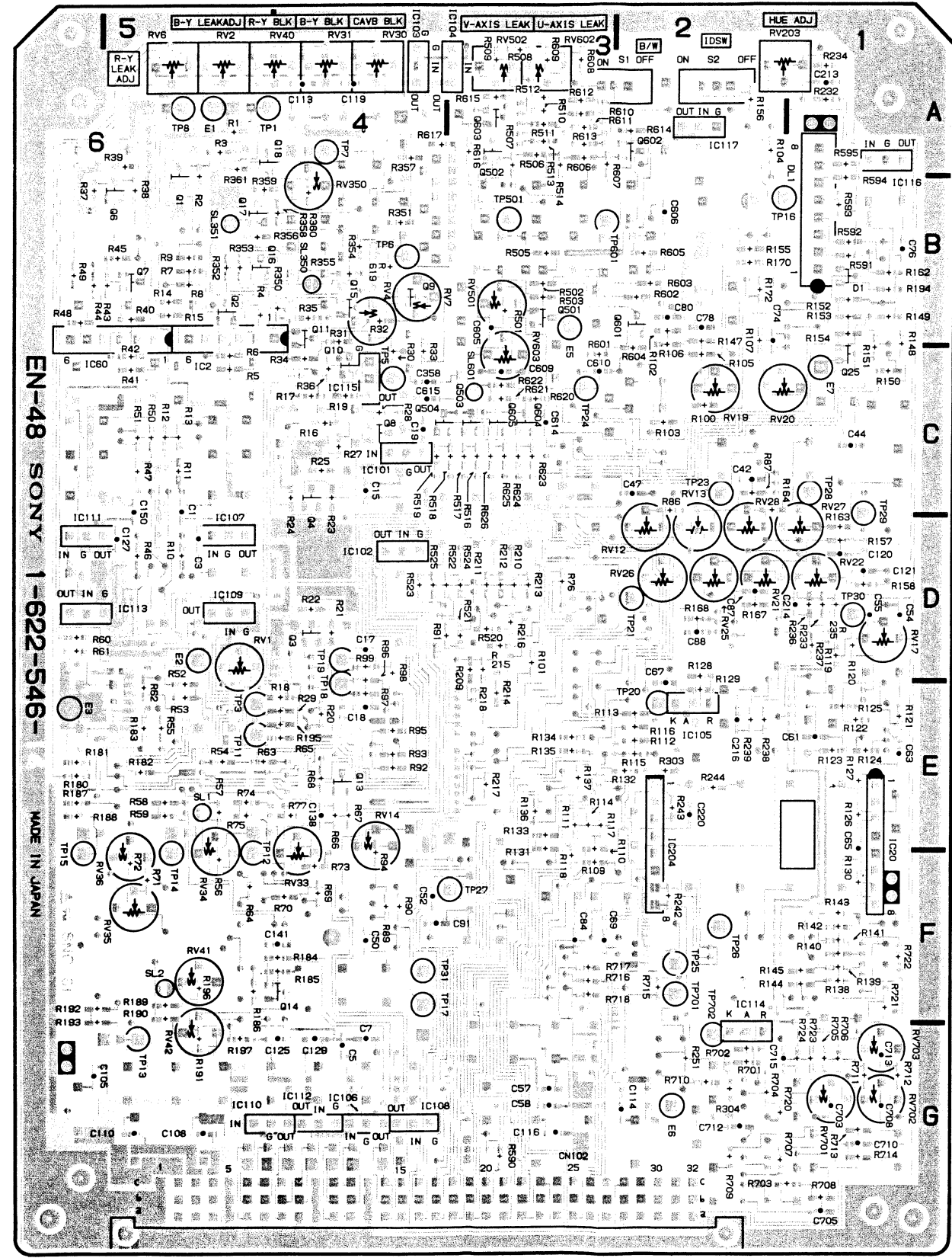


EN-48P; C ENCODER

A-3  
C-3  
G-1  
G-1  
G-1  
A-3  
A-2  
F-5  
E-6  
C-4  
C-4  
C-3  
A-5  
D-5  
B-5  
B-4  
A-4  
A-5  
E-5  
F-5  
F-5  
E-6  
A-2  
F-4  
D-4  
D-2  
C-2  
C-3  
F-2  
F-2  
F-4  
C-1  
C-1  
D-1  
F-4  
B-3  
B-3  
F-2  
F-2  
E-1  
E-2



EN-48P—COMPONENT SIDE—  
1-622-546-14,15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P



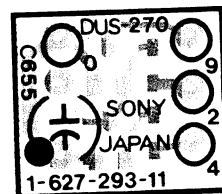
EN-48P—SOLDERING SIDE—  
1-622-546-14,15  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

VO-18AP; VIDEO OUTPUT  
DUS-270; SQUELCH BUFFER

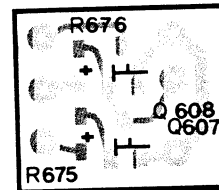
VO-18AP (1-622-547-21, 22, 23)

REF. NO.	TYPE	PIN NO.						
		+12V	+9V	+8V	+5V	GND	-5V	-12V
IC 1	MC34184M		4			1.4		11
IC 3	TL610CPS	8			12	5.7.10		7
IC 4	CX20158				12	5.7.10		
IC 5	CX20158				12	5.7.10		
IC 6	CX20158				12	5.7.10		
IC 7	TC74HC00F				14	7		
IC 8	SN74LS06NS				14	7		
IC 9	TC74HC08F				14	7		
IC 10	TC74HC04F				14	7		
IC 11	CX20158		14			5.7.10.12	1	
IC 12	CX20158				12	5.7.10		
IC 13	CX20158				14	5.7.10.12		
IC 15	TL082CPS	8			16	8		4
IC 16	TC4053BF				8			
IC 17	MC34182M				8		4	
IC 100	NJM78L05A	*	*	*	*	*	*	*
IC 101	NJM78L08A	*	*	*	*	*	*	*
IC 102	NJM79L05A	*	*	*	*	*	*	*
IC 103	NJM79L08A	*	*	*	*	*	*	*
IC 104	NJM78L05A	*	*	*	*	*	*	*
IC 105	NJM79L05A	*	*	*	*	*	*	*
IC 106	NJM78L05A	*	*	*	*	*	*	*
IC 107	NJM79L05A	*	*	*	*	*	*	*
IC 108	S-80230AG	*	*	*	*	*	*	*
IC 109	NJM78L08A	*	*	*	*	*	*	*
IC 110	NJM79L05A	*	*	*	*	*	*	*
IC 111	S-81230AG	*	*	*	*	*	*	*
IC 112	NJM78L05A	*	*	*	*	*	*	*
IC 113	NJM79L05A	*	*	*	*	*	*	*
IC 601	CX20111					1.11.13.17		
IC 602	TC4030BF				14	7		
IC 603	NJM4558M				8		4	
IC 604	TC50403BF				14	7		
IC 605	TC4538BF				16	8		
IC 606	MB4002PF	8			14	7		
IC 700	SN74LS00NS				14	6		9
IC 701	BX-381	2						4
IC 702	MC34182M	8			8			
IC 703	μPC393C2						4	
IC 704								
IC 705	TC74HC123F	8			16	8		5
IC 706	TC610CPS				12	5.7.10	1	
IC 707	CX20158		4		14	7		
IC 708	SN74LS04NS							

\* REFER TO SCHEMATIC



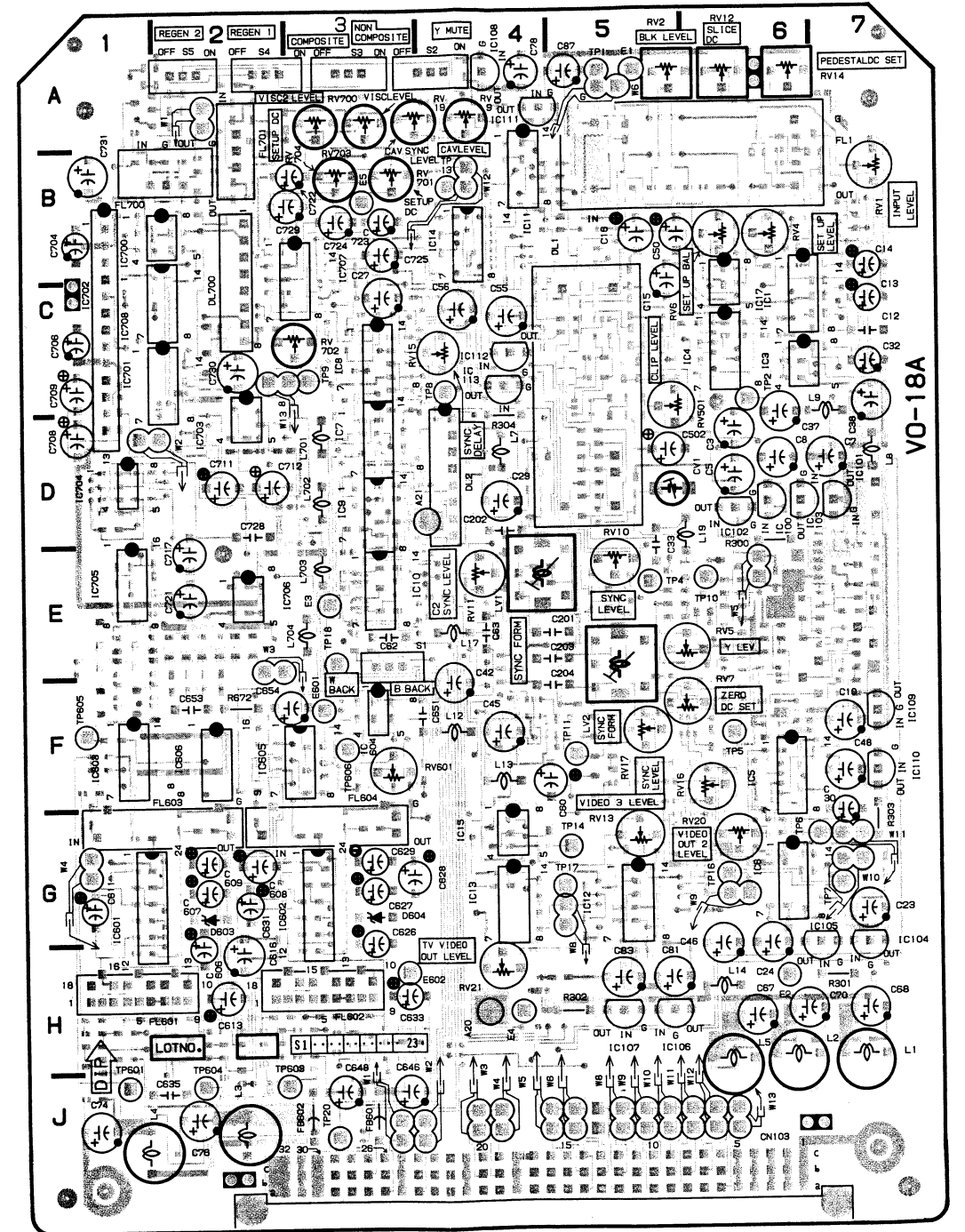
**DUS-270** — COMPONENT SIDE —  
1-627-293-11  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



**DUS-270** — SOLDERING SIDE —  
1-627-293-11  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

VO-18AP (1-622-547-21, 22, 23)

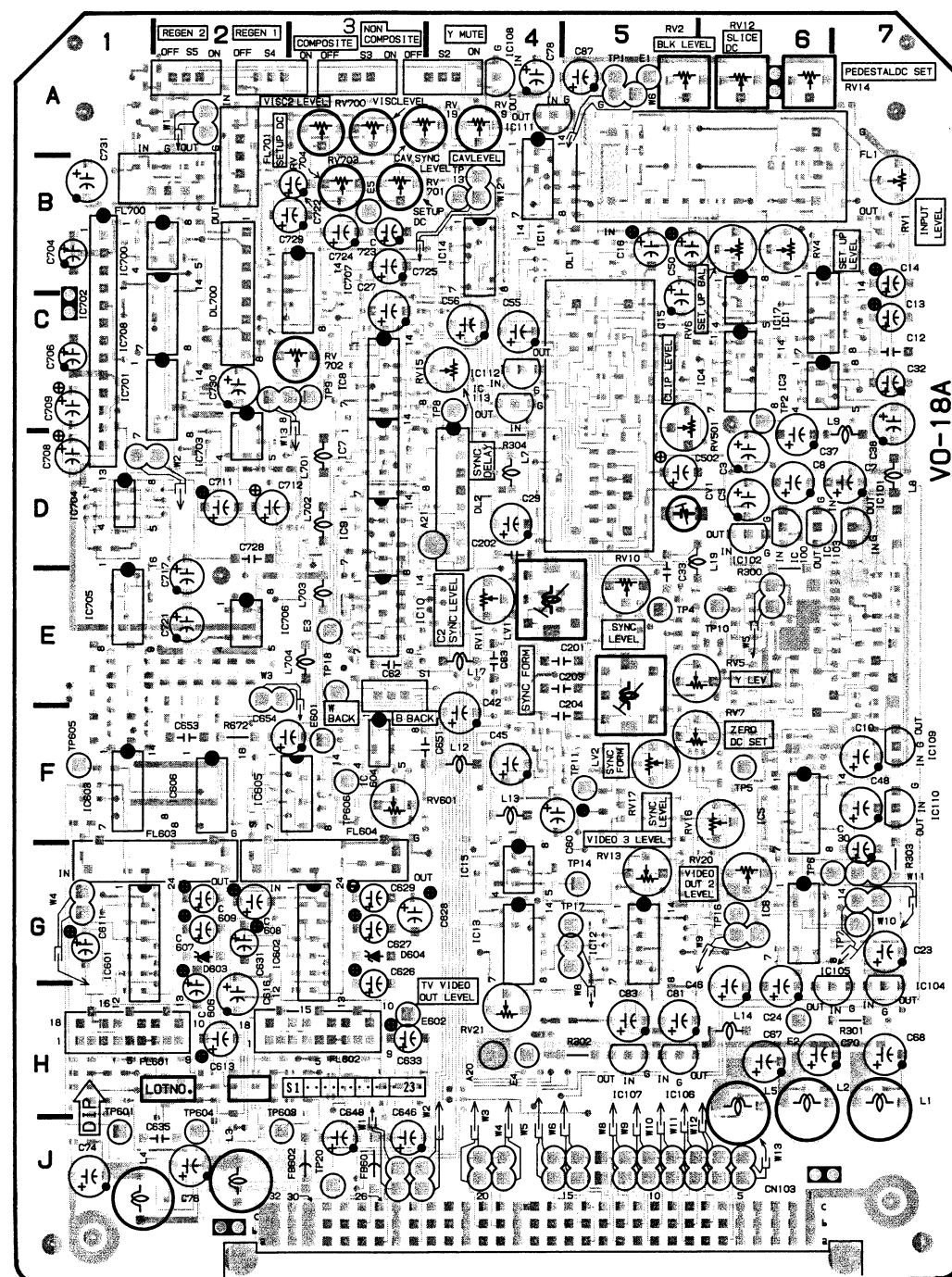
CN103	J-4	IC704	D-1	RV501	C-5
CV1	D-5	IC705	E-1	RV601	F-3
		IC706	E-2		
		IC707	B-3	RV700	A-3
		IC708	C-2	RV701	B-3
				RV702	C-3
D1	E-3			RV703	A-3
D601	H-1	LV1	E-4	RV704	B-3
D602	H-3	LV2	F-5		
D603	G-2			S1	E-3
D604	G-3	Q1	A-5	S2	A-4
D605	F-3	Q2	B-6	S3	A-3
		Q3	B-6	S4	A-2
DL1	C-5	Q4	B-7	S5	A-2
DL2	D-4	Q5	B-7		
DL700	C-2	Q6	D-5	SL1	E-3
		Q7	E-5	SL2	E-3
E1	A-5	Q8	E-6	SL3	E-3
E2	H-6	Q9	E-6	SL700	C-2
E3	E-3	Q10	F-6	SL701	C-2
E4	H-4	Q11	F-5		
E5	B-3	Q12	F-5	TP1	A-5
E601	F-3	Q14	E-6	TP2	C-6
E602	H-3	Q15	E-5	TP4	E-5
		Q16	F-5	TP5	F-6
FB601	J-3	Q17	F-5	TP6	G-6
FB602	J-3	Q18	F-5	TP7	G-7
		Q19	G-5	TP8	C-4
FL1	B-6	Q20	F-5	TP9	C-3
FL601	H-1	Q21	B-4	TP10	E-6
FL602	H-3	Q22	B-5	TP11	F-5
FL603	G-2	Q25	A-4	TP13	B-4
FL604	G-3	Q26	B-5	TP14	G-5
FL700	B-1	Q27	G-5	TP16	G-6
FL701	B-2	Q28	G-5	TP17	G-5
		Q29	G-4	TP18	E-3
IC1	C-6	Q30	F-4	TP20	J-3
IC3	C-6	Q31	E-4	TP601	J-1
IC4	C-6	Q32	D-4	TP603	J-2
IC5	F-6	Q40	D-3	TP604	J-2
IC6	G-6	Q501	C-5	TP605	F-1
IC7	D-3	Q502	C-5	TP606	F-3
IC8	C-3	Q503	C-5		
IC9	D-3	Q504	C-5		
IC10	E-3	Q601	H-2		
IC11	B-4	Q602	J-2		
IC12	G-5	Q603	H-3		
IC13	G-4	Q604	H-1		
IC14	B-4	Q605	H-2		
IC15	G-4	Q606	F-2		
IC17	C-6	Q700	A-1		
IC100	D-6	Q701	A-1		
IC101	D-7	Q702	B-2		
IC102	D-6	Q703	A-2		
IC103	D-7	Q704	C-3		
IC104	H-7			RV1	B-7
IC105	H-6			RV2	A-5
IC106	H-5			RV4	B-6
IC107	H-5			RV5	E-6
IC108	A-4			RV6	B-6
IC109	F-7			RV7	F-6
IC110	F-7			RV9	A-4
IC111	A-4			RV10	E-5
IC112	C-4			RV11	E-4
IC113	C-4			RV12	A-6
IC601	G-1			RV13	G-5
IC602	G-3			RV14	A-6
IC603	F-1			RV15	C-4
IC604	F-3			RV16	F-6
IC605	F-3			RV17	F-5
IC606	F-2			RV19	A-4
IC700	B-2			RV20	G-6
IC701	C-2			RV21	H-4
IC702	C-1				
IC703	D-2				



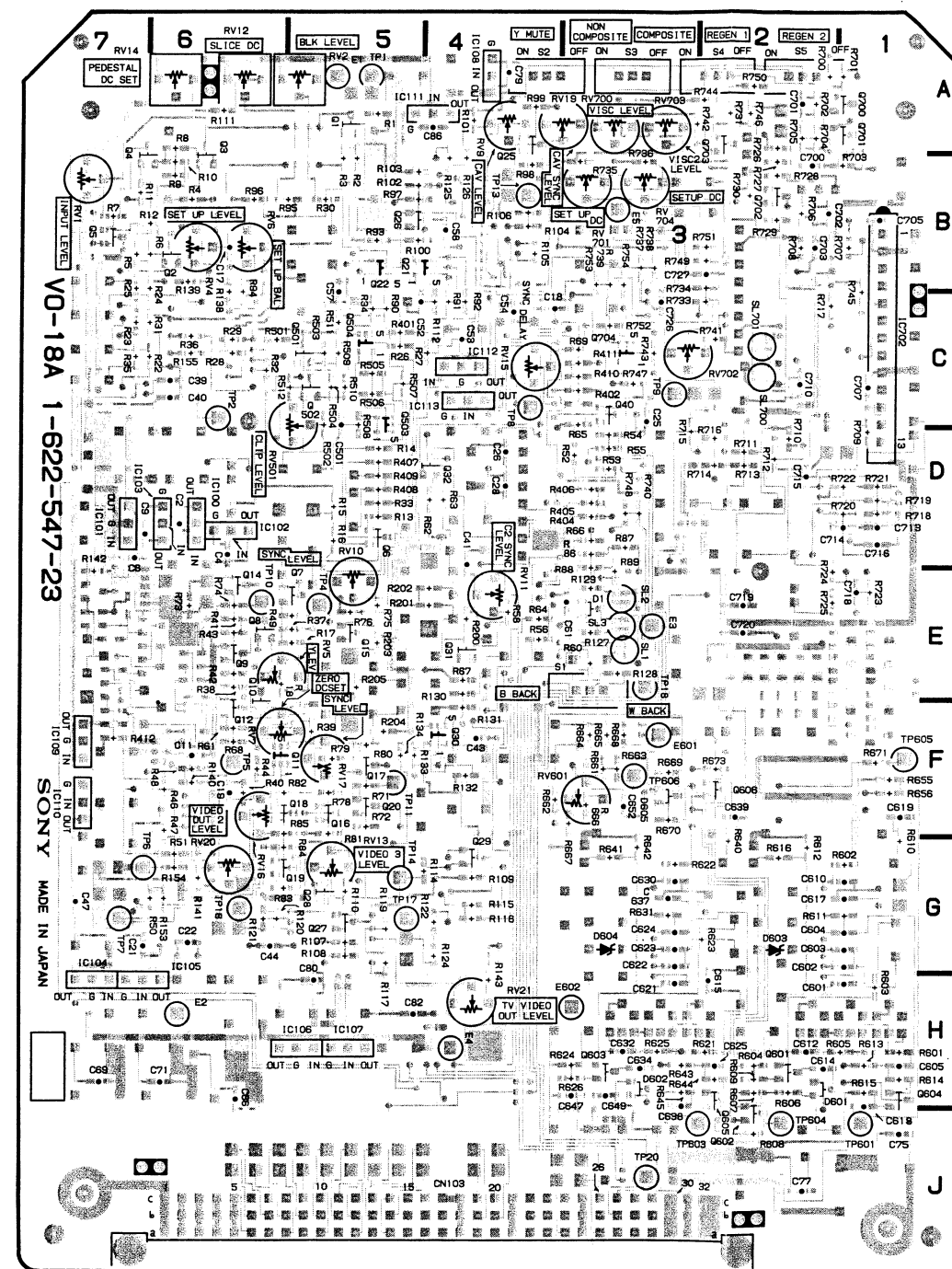
**VO-18AP** — COMPONENT SIDE —  
1-622-547-21, 22, 23  
BVW-60P  
BVW-65P  
BVW-95P  
BVW-96P

# VO-18AP; VIDEO OUTPUT DUS-270; SQUELCH BUFFER

RV501	C-5
RV601	F-3
RV700	A-3
RV701	B-3
RV702	C-3
RV703	A-3
RV704	B-3
S1	E-3
S2	A-4
S3	A-3
S4	A-2
S5	A-2
SL1	E-3
SL2	E-3
SL3	E-3
SL700	C-2
SL701	C-2
TP1	A-5
TP2	C-6
TP4	E-5
TP5	F-6
TP6	G-6
TP7	G-7
TP8	C-4
TP9	C-3
TP10	E-6
TP11	F-5
TP13	B-4
TP14	G-5
TP16	G-5
TP17	G-6
TP18	E-3
TP20	J-3
TP601	J-1
TP603	J-2
TP604	J-2
TP605	F-1
TP606	F-3



VO-18AP—COMPONENT SIDE—  
1-622-547-21, 22, 23  
BVW-60P  
BVW-65P  
BVW-95P



VO-18AP—SOLDERING SIDE—  
1-622-547-21, 22, 23  
BVW-60P  
BVW-65P  
BVW-95P



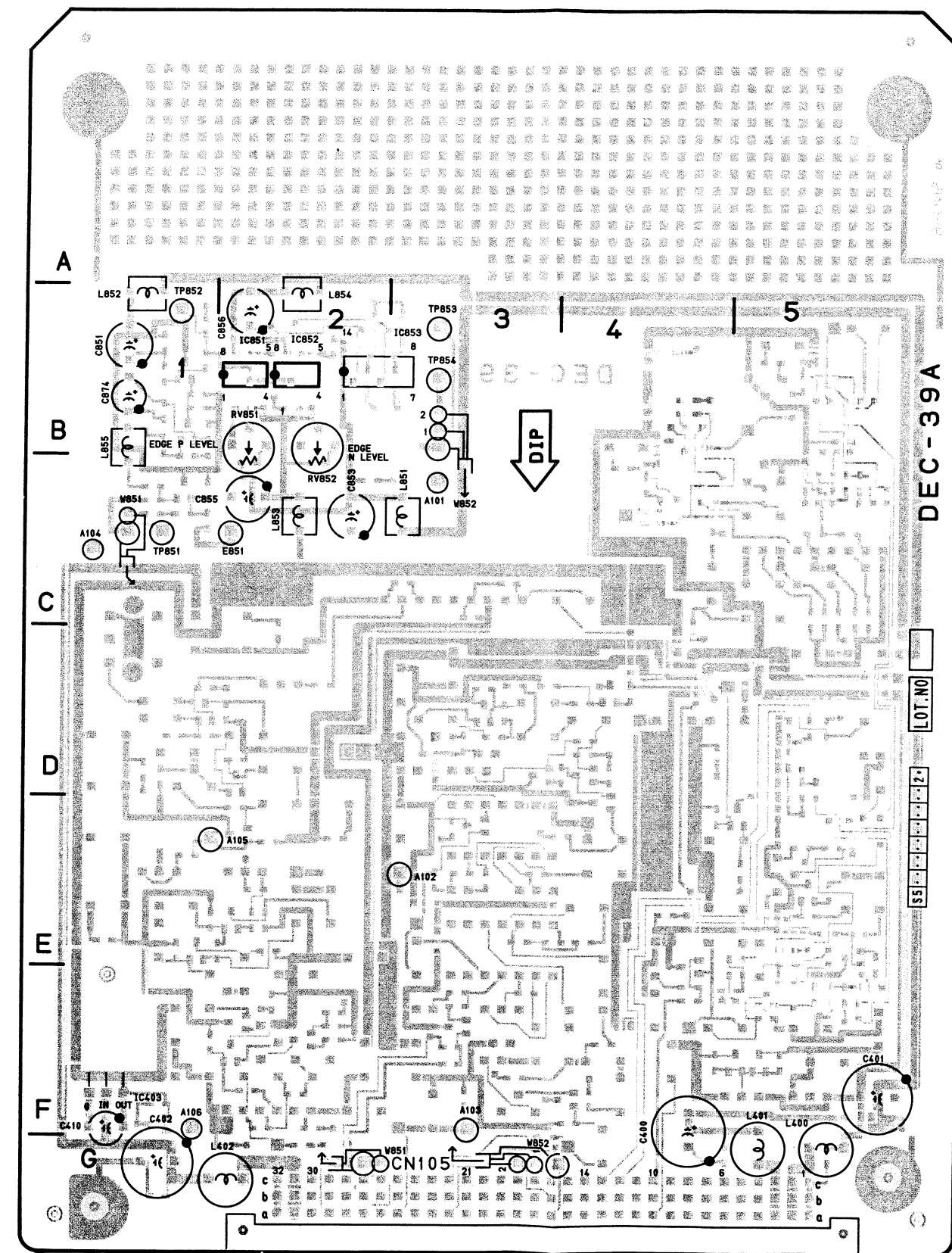
DEC-39A (1-623-874-21)

REF. NO	TYPE	PIN NO.					
		REG +12V	+9V	+5V	GND	-5V	REG -12V
IC 403	NJY79M05A	*	*	*	*	*	*
IC 851	MB4002PF	8			1	4	
IC 852	MB4002PF	8			1	4	
IC 853	SN74HC08NS			14	7		

\* REFER TO SCHEMATIC

DEC-39A (1-623-874-21)

- CN105 G-3
- D403 F-1
- E851 C-2
- IC403 F-1
- IC851 B-2
- IC852 B-2
- IC853 B-2
- Q851 C-1
- Q852 B-1
- Q853 B-1
- RV851 B-2
- RV852 B-2
- TP851 C-1
- TP852 B-1
- TP853 B-3
- TP854 B-3



DEC-39A — COMPONENT SIDE —

1-623-874-21

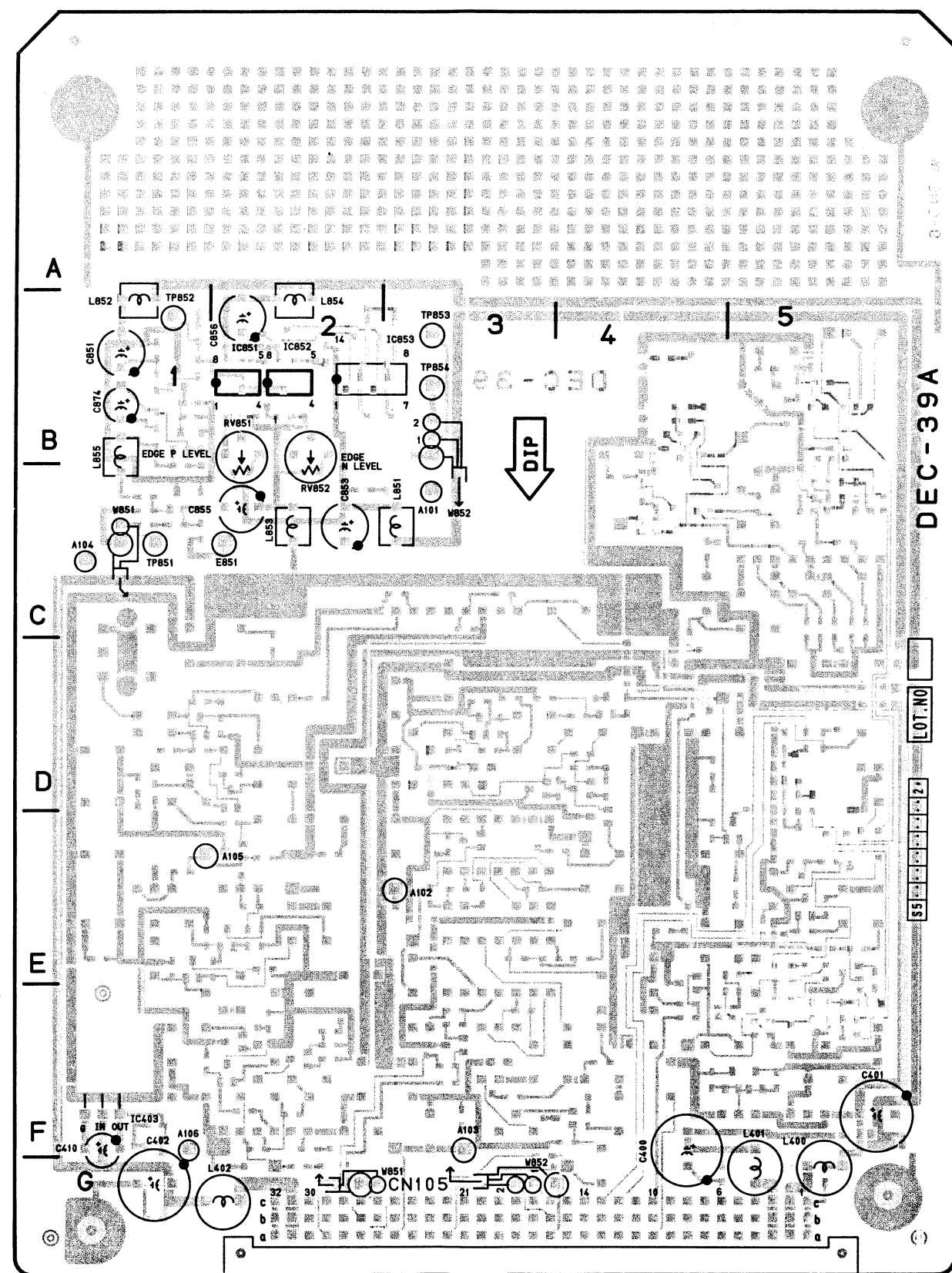
BVW-60P

BVW-65P

BVW-95P

DEC-39A; EDGE DETECTOR

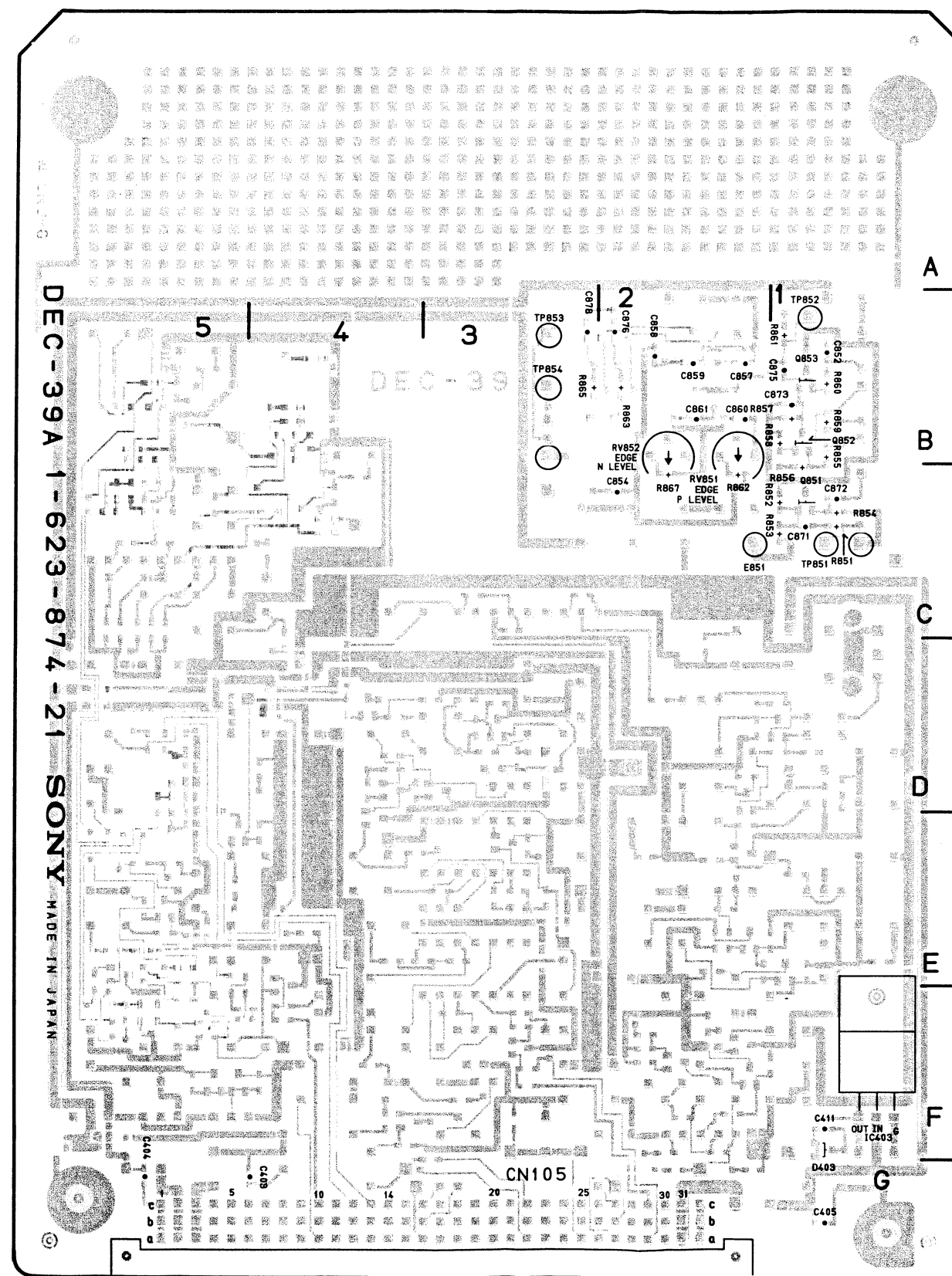
S/N 10061 through 10669



DEC-39A — COMPONENT SIDE —

1-623-874-21  
BVW-60P  
BVW-65P  
BVW-95P

17-48 (a)



DEC-39A — SOLDERING SIDE —

1-623-874-21  
BVW-60P  
BVW-65P  
BVW-95P

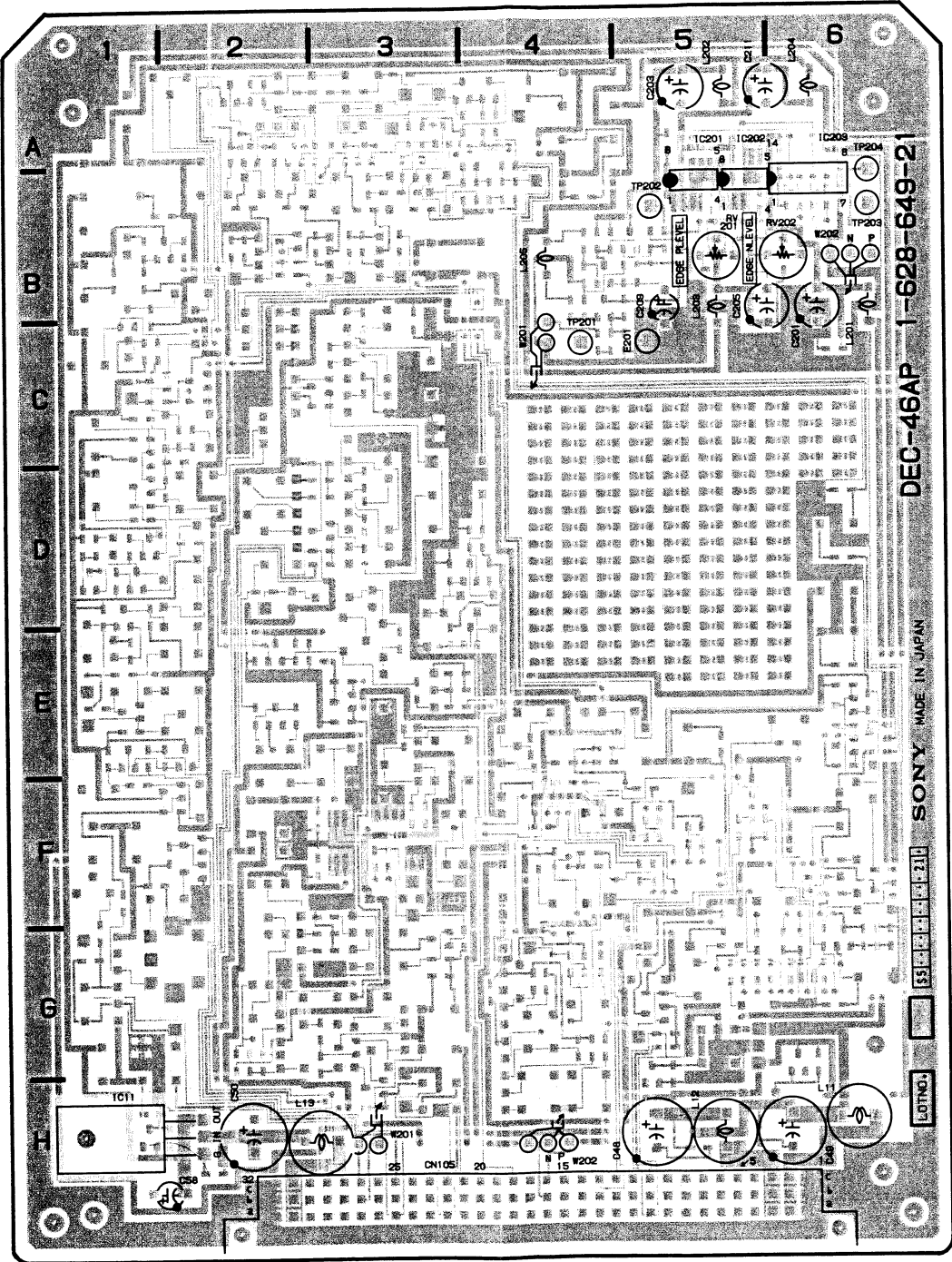
17-49 (a)

DEC-46AP (1-628-649-21)

REF. No.	TYPE	PIN NO.					
		REG +12V	+9V	+5V	GND	-5V	REG -12V
IC 201	MB4002PF	8			1	4	
IC 202	MB4002PF	8			1	4	
IC 203	SN74HC08NS			14	7		
IC 403	NJM79M05A	*	*	*	*	*	*

\* REFER TO SCHEMATIC

- DEC-46AP (1-628-649-21)
- CN105 H-3
  - D4 H-1
  - E201 C-5
  - IC11 H-1
  - IC201 B-5
  - IC202 B-5
  - IC203 B-6
  - Q201 B-5
  - Q202 B-5
  - Q203 B-5
  - RV201 B-5
  - RV202 B-6
  - TP201 C-4
  - TP202 B-5
  - TP203 B-6
  - TP204 B-6

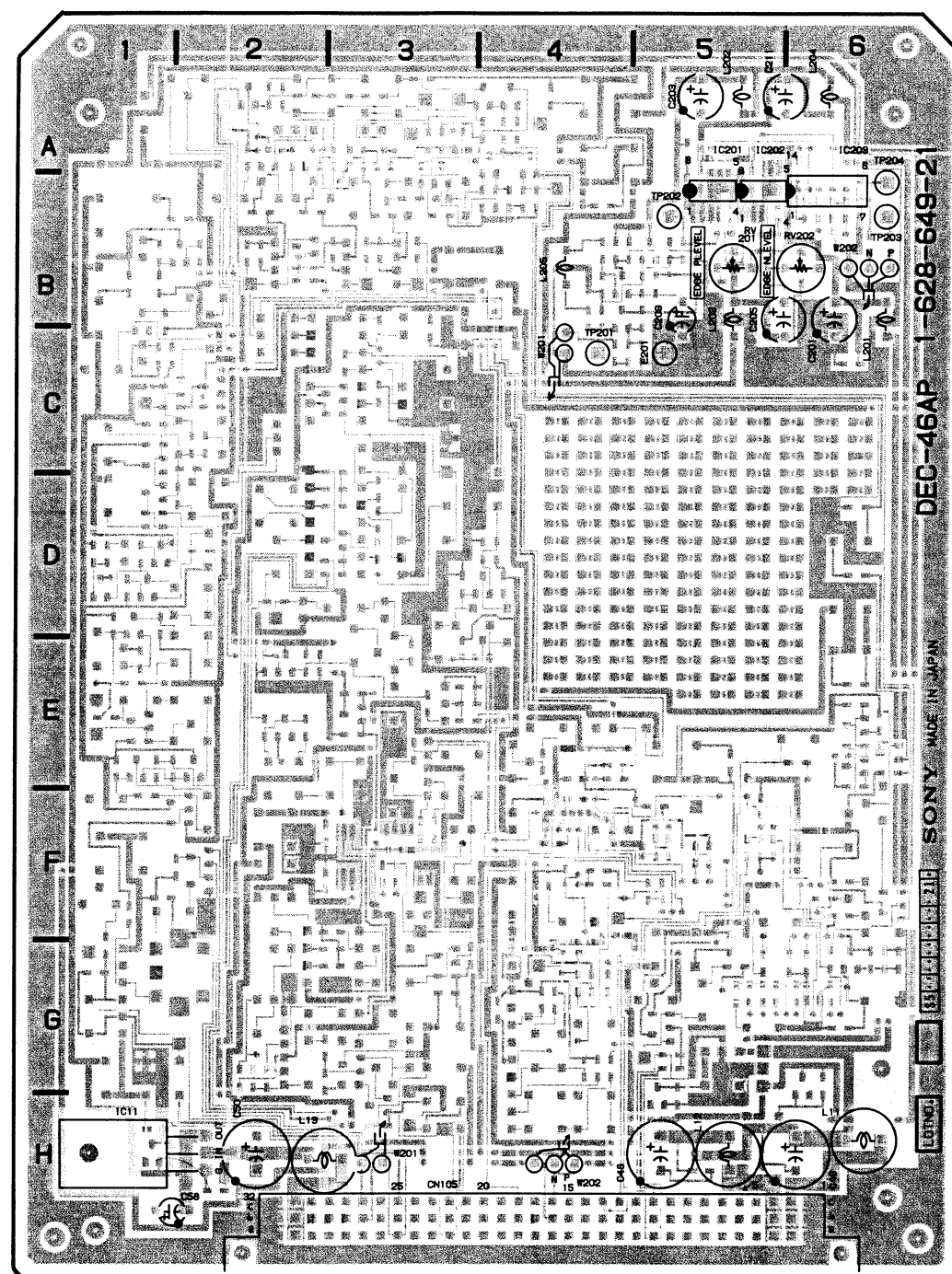


DEC-46AP — COMPONENT SIDE —  
1-628-649-21  
BVW-60P  
BVW-65P  
BVW-95P

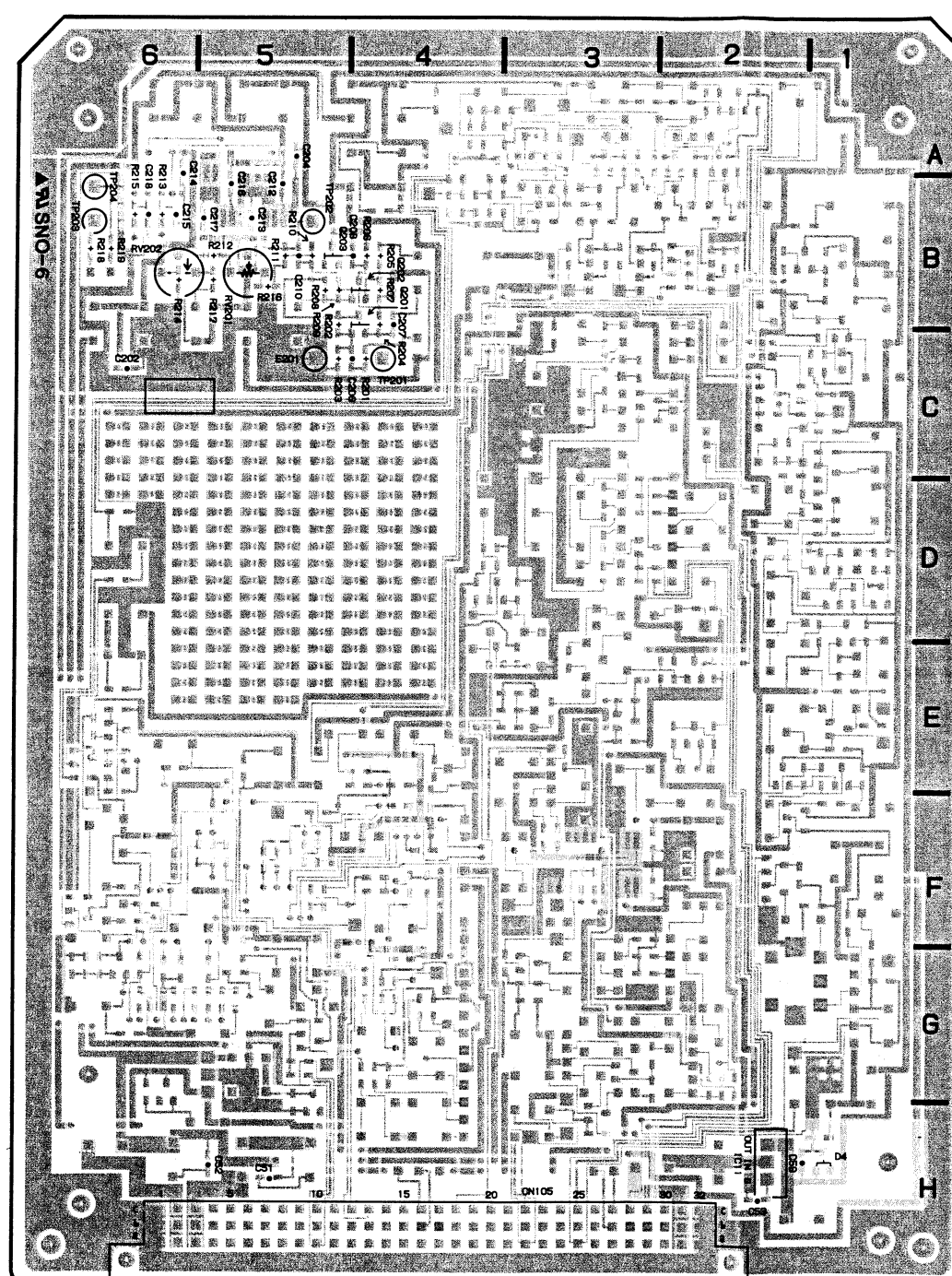


DEC-46AP; EDGE DETECTOR

S/N 10670 and higher

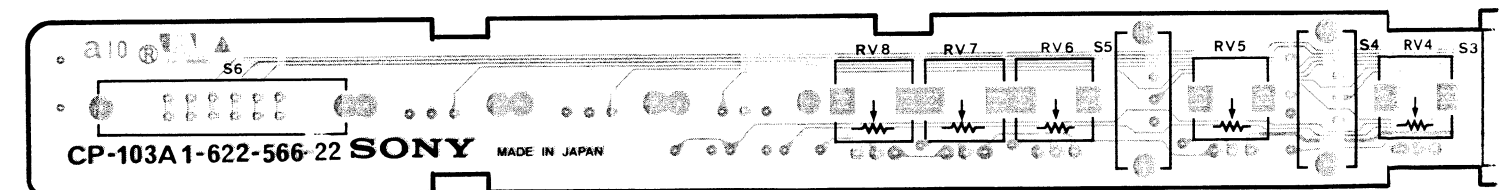
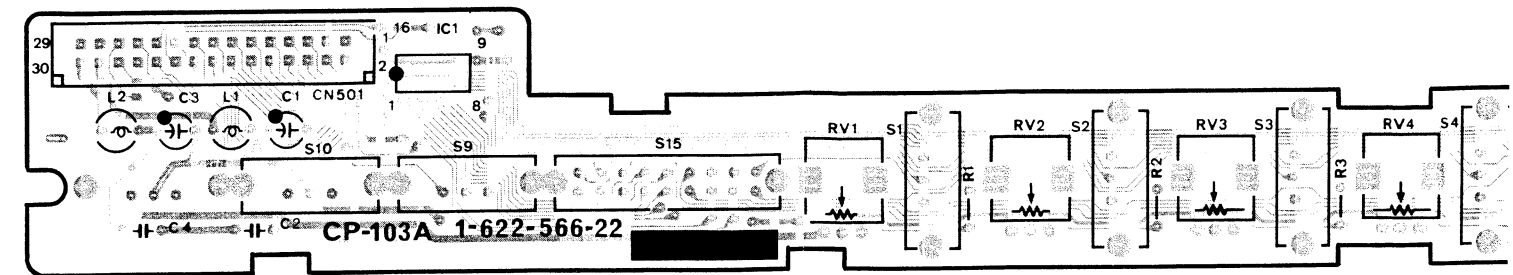


**DEC-46AP** — COMPONENT SIDE —  
1-628-649-21  
BVW-60P  
BVW-65P  
BVW-95P



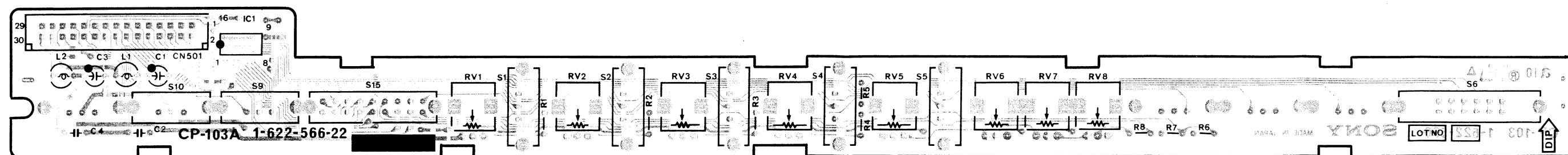
**DEC-46AP** — SOLDERING SIDE —  
1-628-649-21  
BVW-60P  
BVW-65P  
BVW-95P

## CP-103AP; SUB CONTROL PANEL



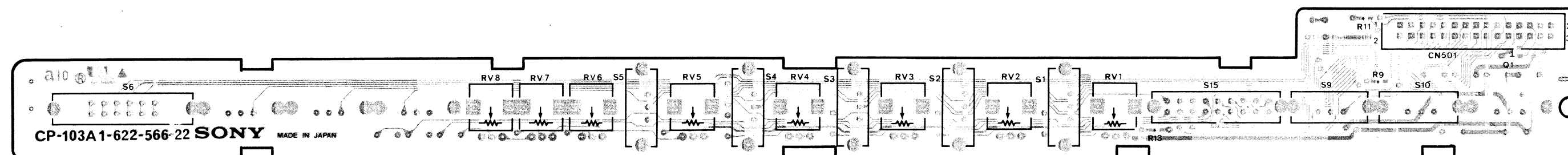


## CP-103AP; SUB CONTROL PANEL



CP-103AP — COMPONENT SIDE —

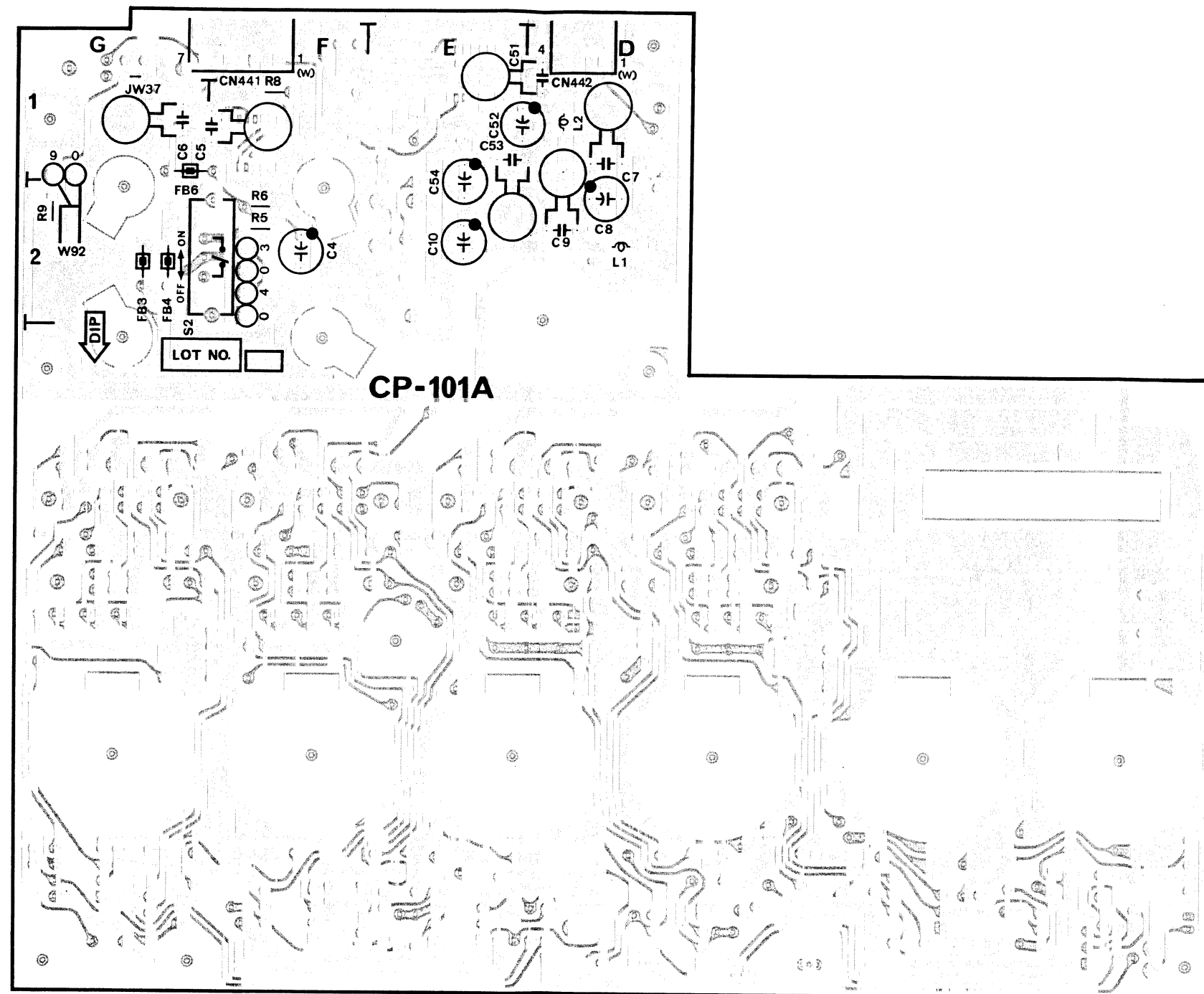
1-622-566-22  
BVW-60P  
BVW-65P  
BVW-95P



CP-103AP — SOLDERING SIDE —

1-622-566-22  
BVW-60P  
BVW-65P  
BVW-95P

CP-101AP; REF VIDEO INPUT



CP-101AP — COMPONENT SIDE —

1-622-570-21  
BVW-60P  
BVW-65P  
BVW-95P

AU-118P; LNG AUDIO HEAD AMPLIFIER

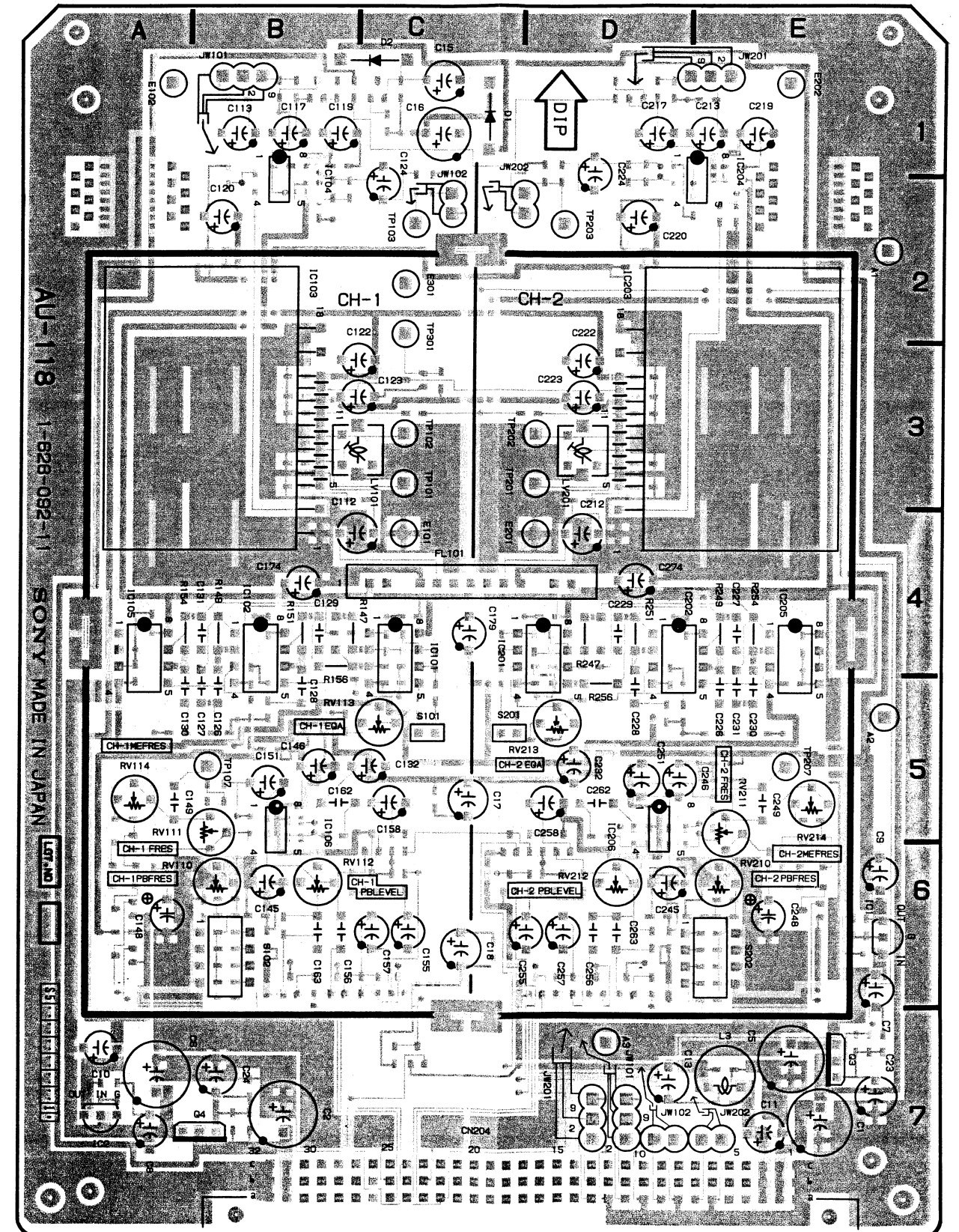
AU-118P (1-626-092-11)

REF. NO	TYPE	PIN NO.						
		+12V	+11V	+7V	GND	-7V	-11V	-12V
IC 1	NJM78L05A	*		*	2	*		*
IC 2	NJM79L05A	*		*	3	*		*
IC 101	μPC4558C		8				4	
IC 102	μPC4558C		8				4	
IC 103	BX1152			12	1.6.18	14		
IC 104	NJM5532M			8			4	
IC 105	μPC4558C		8				4	
IC 106	NJM2043M-D			8			4	
IC 201	μPC4558C		8				4	
IC 202	μPC4558C		8				4	
IC 203	BX1152			12	1.6.18	14		
IC 204	NJM5532M			8			4	
IC 205	μPC4558C							
IC 206	NJM2043M-D			8			4	

\* REFER TO SCHEMATIC

AU-118P (1-626-092-11)

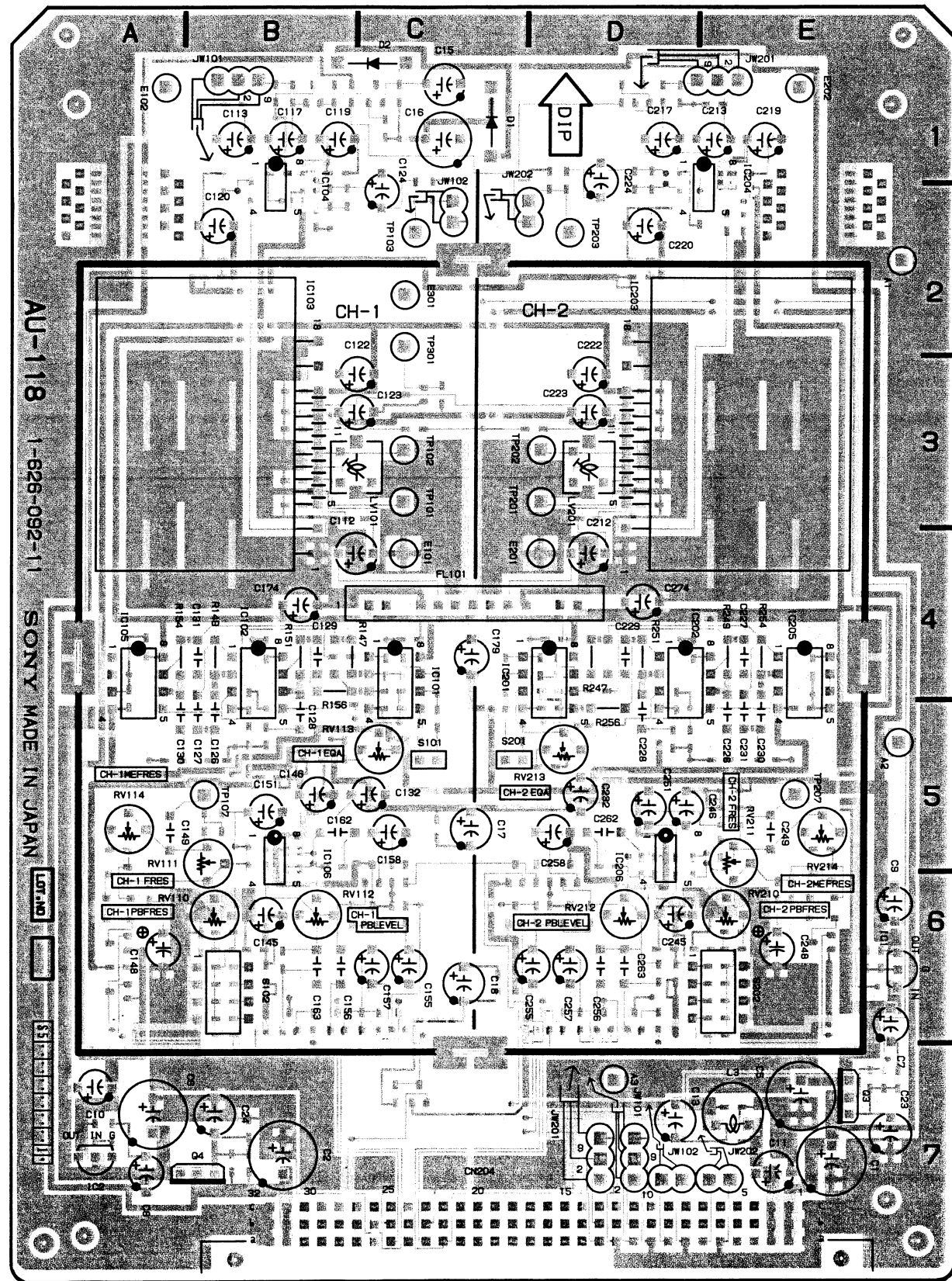
CN204	C-7	S101	C-5
D1	C-1	S102	B-6
D2	C-1	S201	C-5
D303	C-6	S202	E-6
E101	C-4	TP101	C-3
E102	A-1	TP102	C-3
E201	D-4	TP103	C-2
E202	E-1	TP107	B-5
E301	C-2	TP201	D-3
FL101	C-4	TP202	D-3
		TP203	D-2
		TP207	E-5
		TP301	C-3
IC1	E-6		
IC2	A-7		
IC101	C-4		
IC102	B-4		
IC103	B-3		
IC104	B-1		
IC105	A-4		
IC106	B-6		
IC201	D-4		
IC202	D-4		
IC203	D-3		
IC204	E-1		
IC205	E-4		
IC206	D-5		
LV101	C-3		
LV201	D-3		
Q1	C-1		
Q2	C-3		
Q3	E-7		
Q4	B-7		
Q5	A-6		
Q6	C-7		
Q104	B-1		
Q115	C-6		
Q116	B-6		
Q117	C-6		
Q118	A-6		
Q119	A-6		
Q120	B-6		
Q204	D-1		
Q215	D-6		
Q216	D-6		
Q217	D-6		
Q218	E-6		
Q219	E-6		
Q220	D-6		
Q309	C-6		
Q310	D-6		
Q311	C-6		
RV110	B-6		
RV111	B-5		
RV112	B-6		
RV113	C-5		
RV114	A-5		
RV210	E-6		
RV211	E-5		
RV212	D-6		
RV213	D-5		
RV214	E-5		



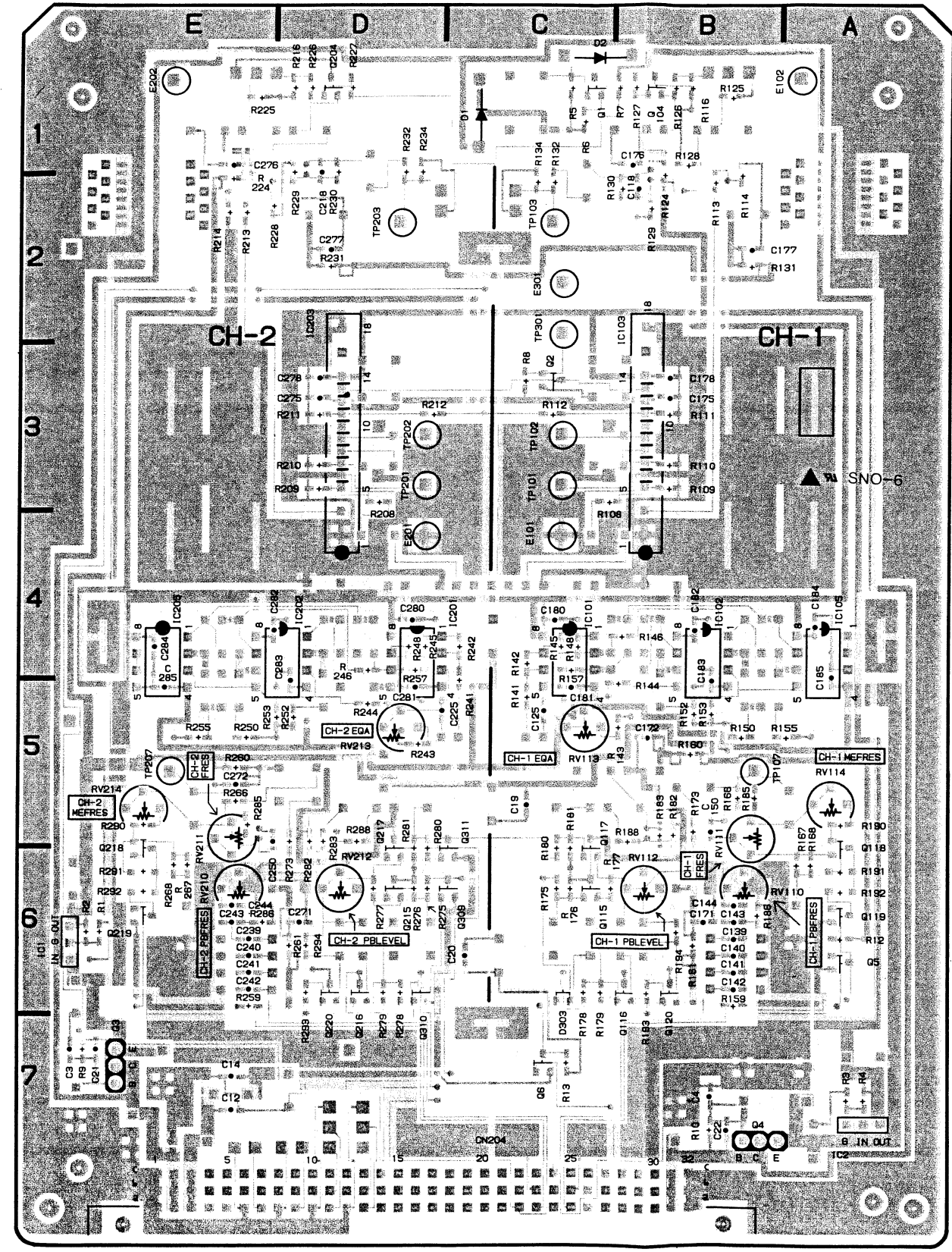
**AU-118P** — COMPONENT SIDE —  
1-626-092-11  
BVW-60P  
BVW-65P  
BVW-95P



## AU-118P; LRG AUDIO HEAD AMPLIFIER



**AU-118P** — COMPONENT SIDE —  
 1-626-092-11  
 BVW-60P  
 BVW-65P  
 BVW-95P



**AU-118P** — SOLDERING SIDE —  
 1-626-092-11  
 BVW-60P  
 BVW-65P  
 BVW-95P

AFM-1A; AFM AUDIO DEMODULATOR  
FL-61; AUDIO LPF

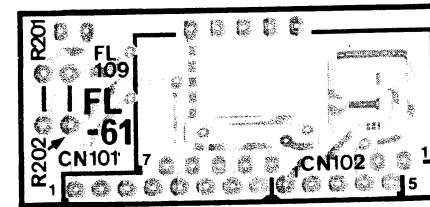
AFM-1A (1-622-569-21, 22)

REF. NO	TYPE	PIN NO.			
		+12V	+5V	GND	-12V
IC 1	AN3920K		7	1.19	
IC 2	AN3920K		7	1.19	
IC 101	AN3922NK		6	4.15	
IC 102	AN3922NK		6	4.15	
IC 103	TC4053BF		16	8	
IC 104	NJM2041M-D	8			4
IC 201	AN3922NK		6	4.15	4
IC 202	AN3922NK		6	4.15	4
IC 303	NJM2041M-D	8			4
IC 304	NJM5532M	8			4
IC 403	NJM2041M-D	8			4
IC 404	NJM5532M	8			4
IC 501	CX20099		15	1.14	
IC 701	TC4011BF		14	7	4
IC 702	TC4030BF		14	7	4
IC 703	TC504013BF		14	7	4
IC 704	TC4538BF		16	8	4
IC 705	TC4538BF		16	8	4
IC 706	TC4001BF		14	7	4
IC 707	TC4001BF		14	7	4
IC 708	NJM78L06A	*	*	2	*
IC 710	NJM7805A	*	*	2	*

\* REFER TO SCHEMATIC

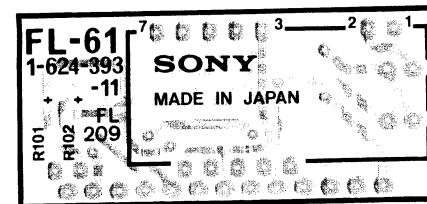
AFM-1A (1-622-569-21, 22)

D101	E-1	IC702	A-6	TP1	C-7
D102	E-3	IC703	B-5	TP2	D-7
D201	A-2	IC704	B-7	TP3	D-1
D202	A-4	IC705	A-5	TP4	B-1
D901	C-2	IC706	A-6	TP5	D-1
D902	C-2	IC707	A-5	TP6	B-2
		IC708	E-7	TP101	E-1
		IC710	E-3	TP102	B-4
E1	E-6			TP103	E-2
E101	E-4			TP201	B-2
E201	B-4	Q1	C-7	TP202	C-4
E301	C-5	Q2	C-7	TP203	B-3
E401	E-5	Q4	D-7	TP302	C-5
E501	D-5	Q304	C-6	TP303	B-6
E701	B-5	Q404	E-6	TP304	B-6
		Q701	E-7	TP402	D-5
		Q702	A-7	TP403	E-5
FL1	C-7	Q705	A-5	TP406	D-5
FL2	D-7	Q706	A-4	TP503	C-5
FL3	E-1	Q707	B-5	TP701	B-6
FL4	B-1	Q901	C-2	TP703	A-1
FL5	B-1	Q902	C-2	TP704	B-1
FL6	E-1	Q903	C-2	TP705	B-5
FL9	D-4	Q904	D-2	TP706	B-4
IC1	D-1				
IC2	C-1	RV2	D-2		
IC101	E-2	RV4	C-2		
IC102	B-3	RV5	D-1		
IC103	B-4	RV6	B-2		
IC104	C-3	RV101	E-2		
IC201	B-2	RV102	B-3		
IC202	B-3	RV103	D-3		
IC303	B-6	RV105	B-4		
IC304	B-6	RV201	A-2		
IC403	E-5	RV202	C-3		
IC404	E-6	RV203	A-3		
IC501	D-6	RV205	B-4		
IC701	B-6				
		S1	B-1		



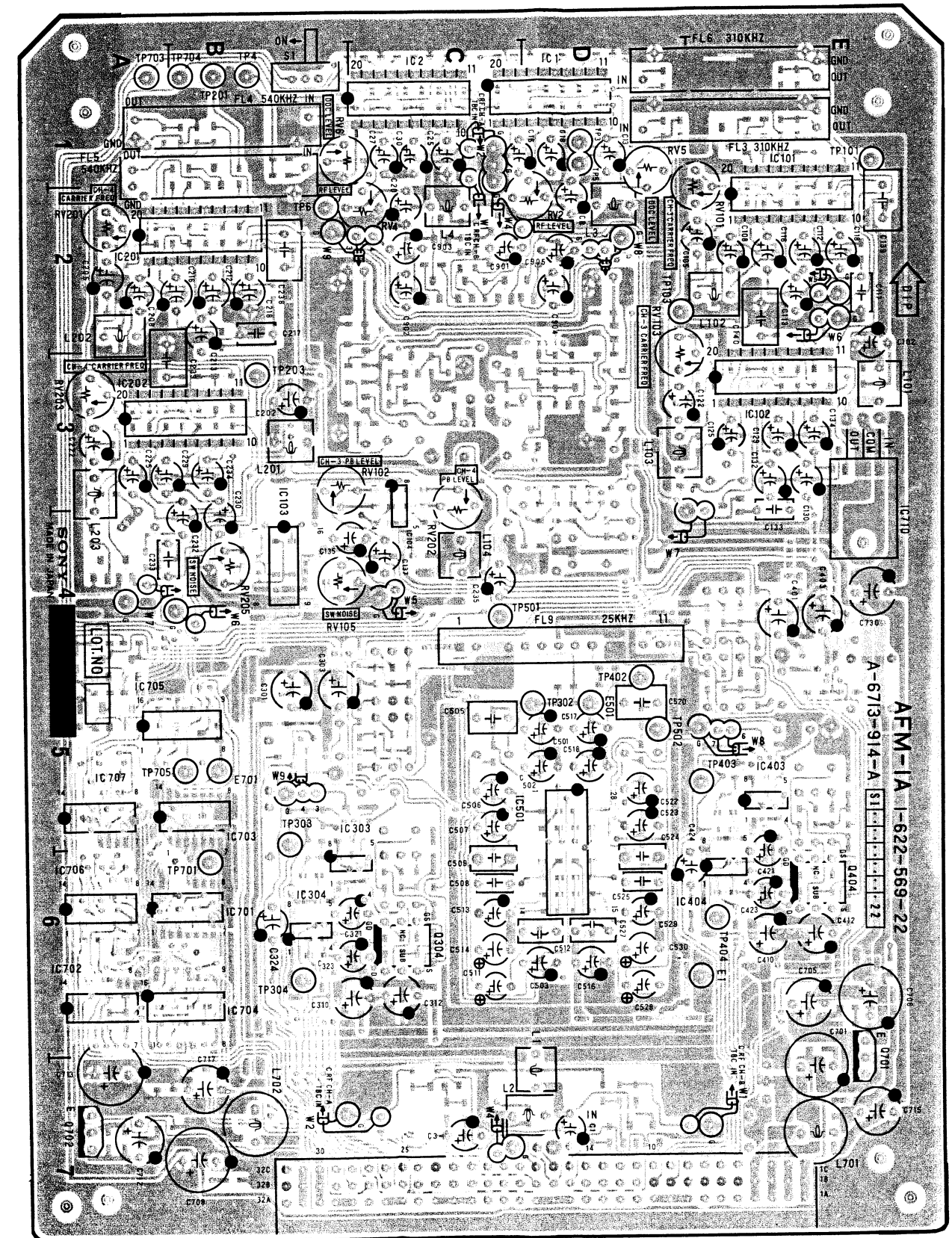
FL-61 — COMPONENT SIDE —

1-624-393-11  
BVW-60P  
BVW-65P  
BVW-95P



FL-61 — SOLDERING SIDE —

1-624-393-11  
BVW-60P  
BVW-65P  
BVW-95P

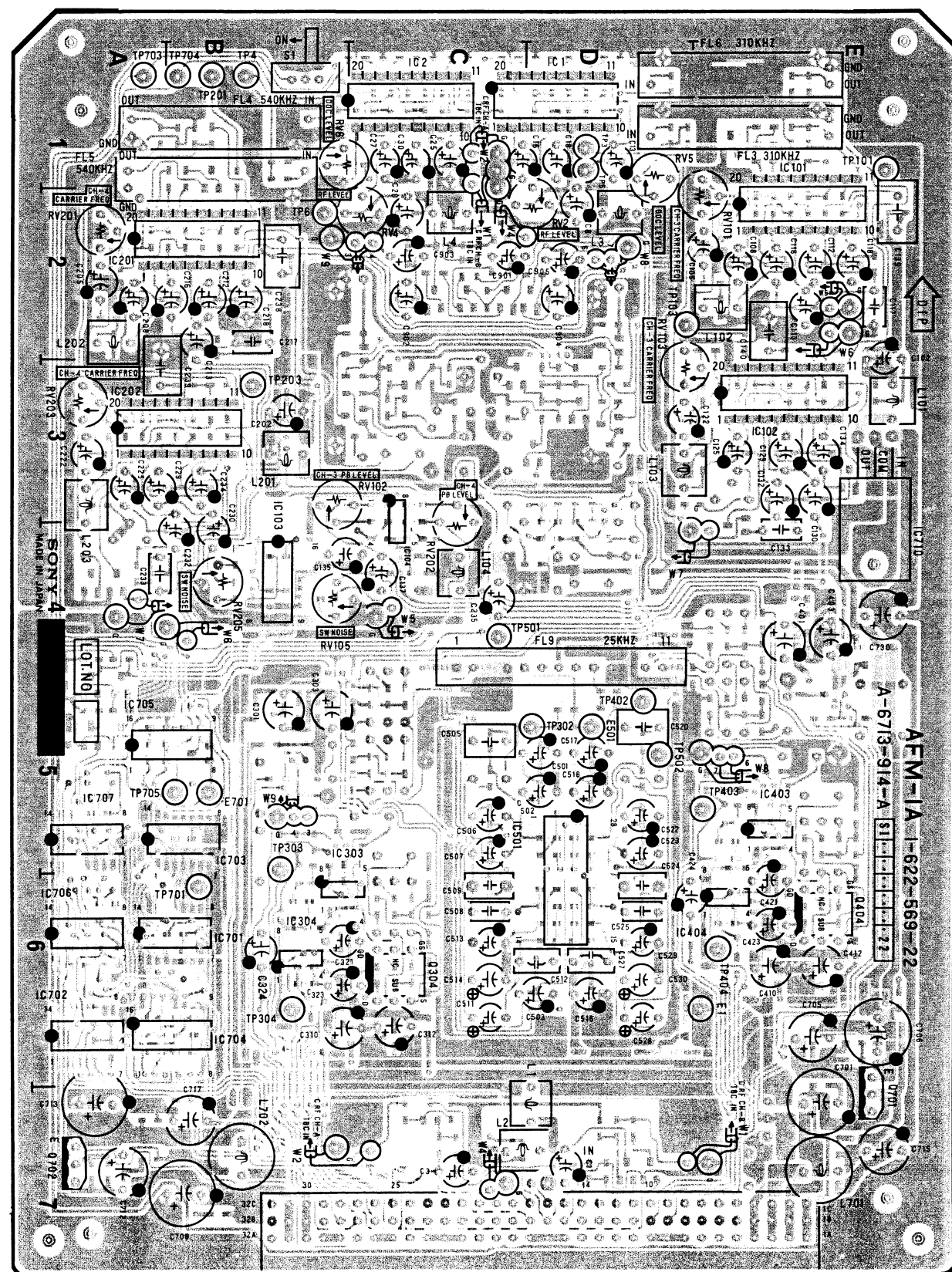


AFM-1A — COMPONENT SIDE —

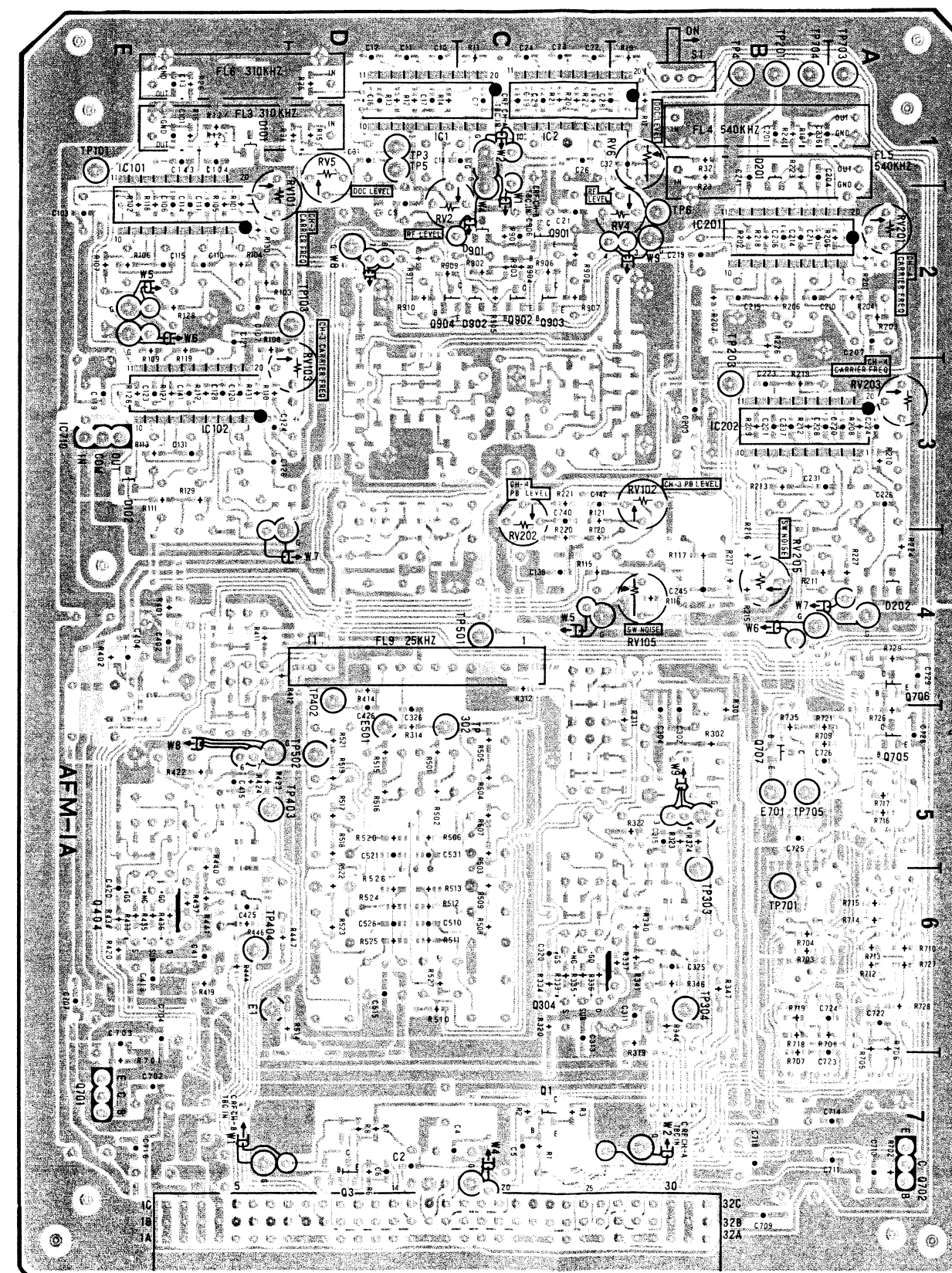
1-622-569-21, 22  
BVW-60P  
BVW-65P  
BVW-95P



AFM-1A; AFM AUDIO DEMODULATOR  
FL-61; AUDIO LPF



**AFM-1A** — COMPONENT SIDE —  
1-622-569-21, 22  
BVW-60P  
BVW-65P  
BVW-95P



**AFM-1A** — SOLDERING SIDE —  
1-622-569-21, 22  
BVW-60P  
BVW-65P  
BVW-95P

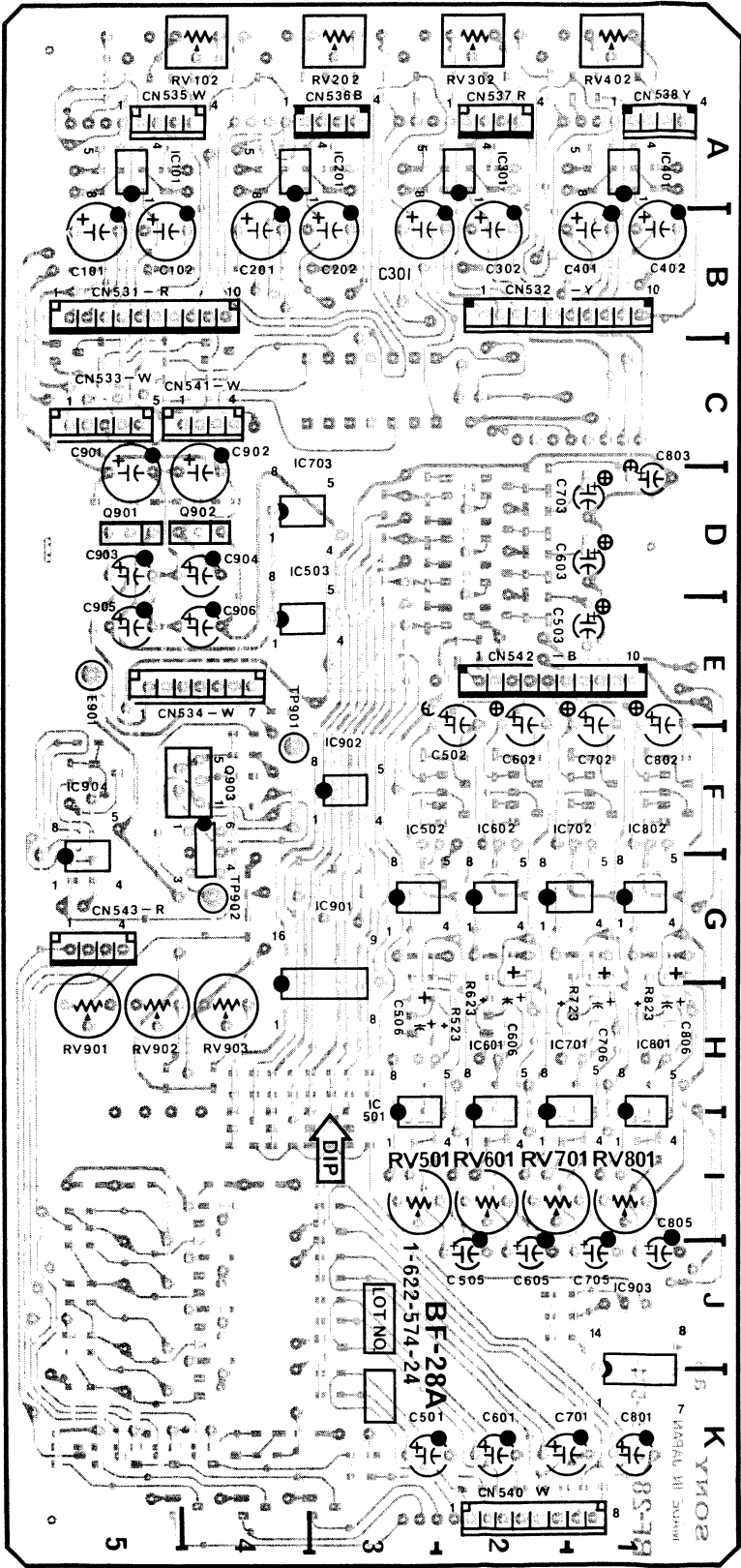
BF-28A; AUDIO BUFFER/LEVEL METER DRIVER  
VR-42; AUDIO PB VOLUME

BF-28A (1-622-574-22, 23, 24)

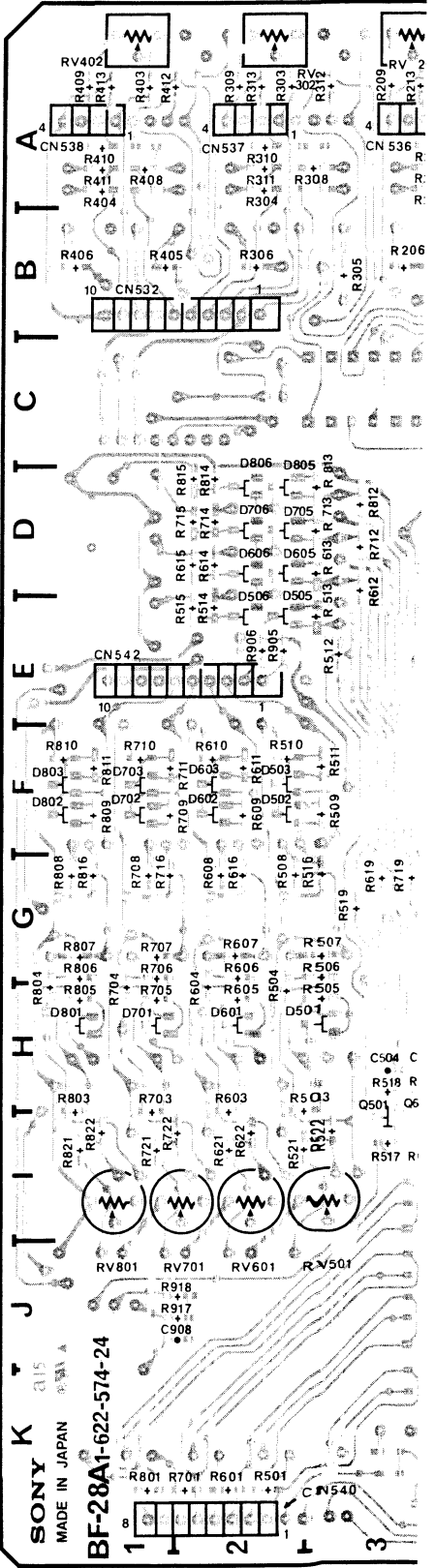
REF. NO.	TYPE	PIN NO.			
		+12V	+8V	-8V	-12V
IC 101	NJM2041M-D	8			4
IC 201	NJM2041M-D	8			4
IC 301	NJM2041M-D	8			4
IC 401	NJM2041M-D	8			4
IC 501	NJM4560M		8	4	
IC 502	NJM4560M		8	4	
IC 503	NJM4560M		8	4	
IC 601	NJM4560M		8	4	
IC 602	NJM4560M		8	4	
IC 701	NJM4560M		8	4	
IC 702	NJM4560M		8	4	
IC 703	NJM4560M		8	4	
IC 801	NJM4560M		8	4	
IC 802	NJM4560M		8	4	
IC 901	TC4052BF		16	8	
IC 902	NJM2041M-D		8	4	
IC 903	TC4030BF		14	7	
IC 904	NJM4560M		8	4	

BF-28A (1-622-574-22, 23, 24)

CN531	B-5	IC101	A-5
CN532	B-2	IC201	A-4
CN533	C-5	IC301	A-2
CN534	E-4	IC401	A-1
CN535	A-5	IC501	H-3
CN536	A-4	IC502	G-3
CN537	A-2	IC503	E-4
CN538	A-1	IC601	H-2
CN540	K-2	IC602	G-2
CN541	C-4	IC701	H-1
CN542	E-1	IC702	G-1
CN543	G-5	IC703	D-3
		IC801	H-1
		IC802	G-1
		IC901	G-3
		IC902	F-3
		IC903	J-1
		IC904	F-5
D501	H-3	Q501	I-3
D502	F-2	Q601	I-3
D503	F-2	Q701	I-4
D505	E-2	Q801	I-4
D506	E-2	Q901	D-5
D601	H-2	Q902	D-4
D602	F-2	Q903	F-4
D603	F-2		
D605	D-2		
D606	D-2		
D701	H-1		
D702	F-1		
D703	F-1		
D705	D-2		
D706	D-2		
D801	H-1		
D802	F-1		
D803	F-1		
D805	D-2		
D806	D-2		
D901	F-4		
D902	F-5		
E901	E-5		
		RV102	A-4
		RV202	A-3
		RV302	A-2
		RV402	A-1
		RV501	I-3
		RV601	I-2
		RV701	I-2
		RV801	I-1
		RV901	H-5
		RV902	H-5
		RV903	H-4
		TP901	F-4
		TP902	G-4

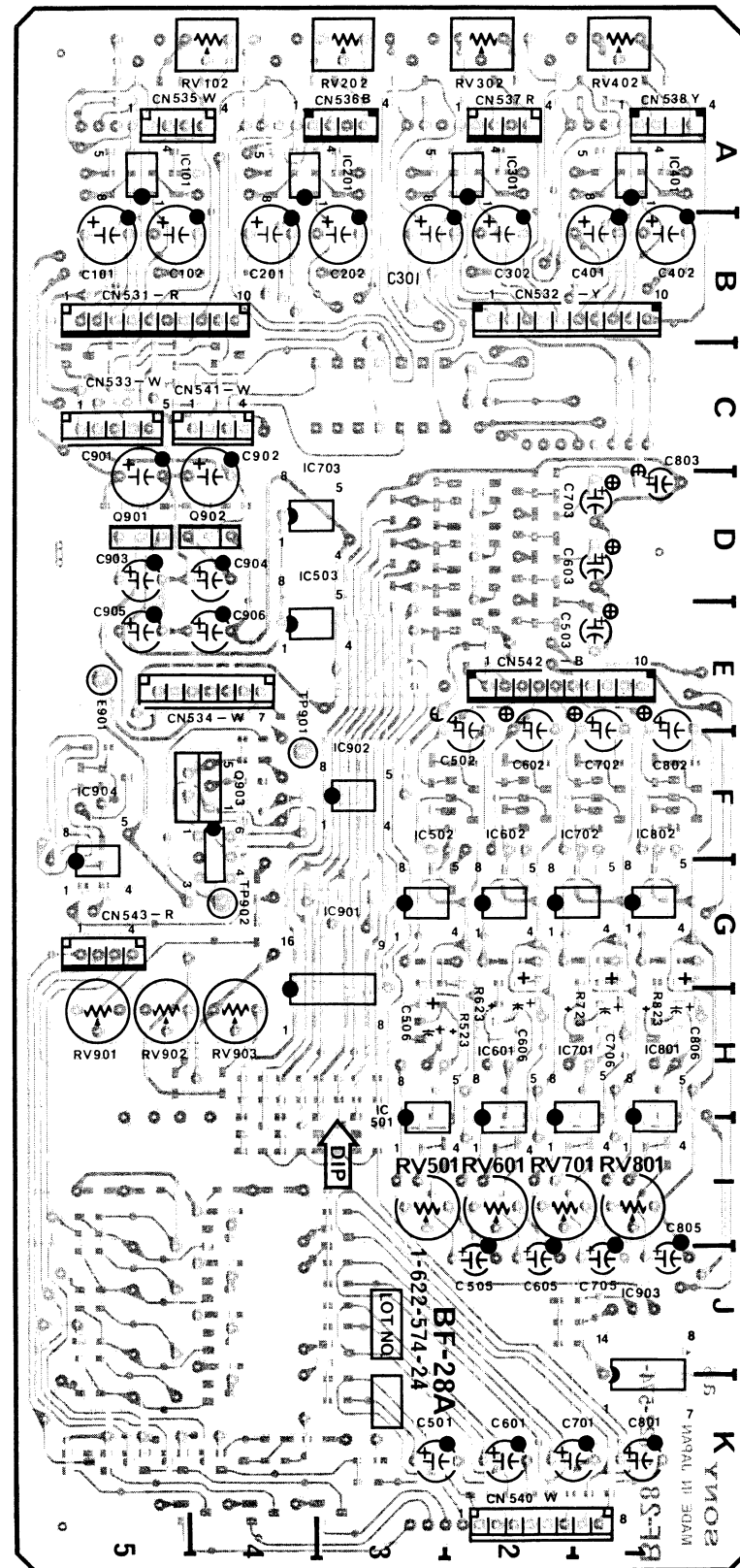


BF-28A — COMPONENT SIDE —  
1-622-574-22, 23, 24  
BVW-60P  
BVW-65P  
BVW-95P

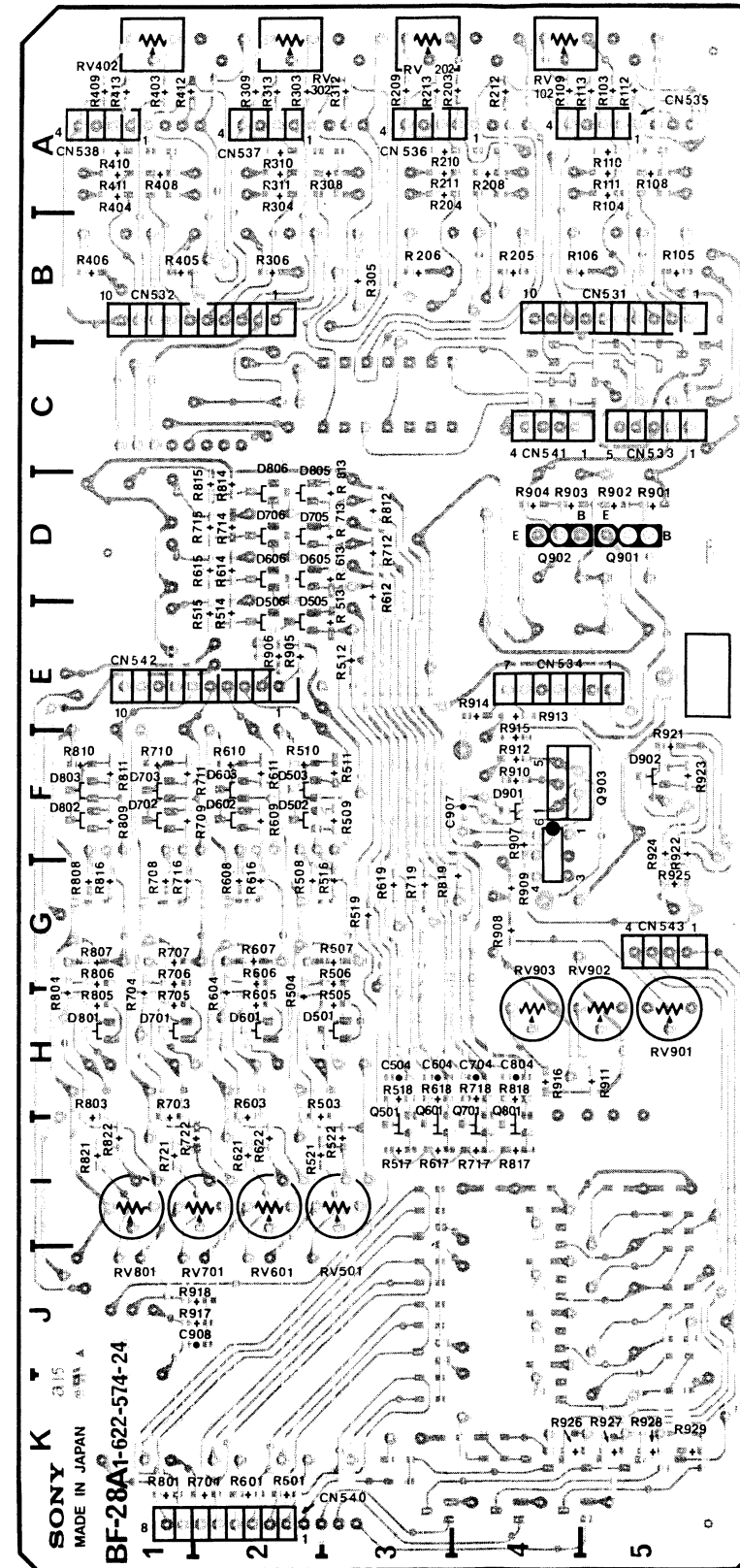




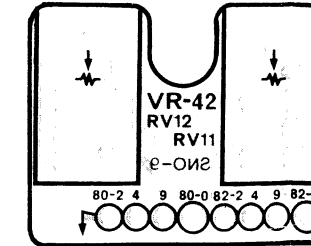
BF-28A; AUDIO BUFFER/LEVEL METER DRIVER  
VR-42; AUDIO PB VOLUME



BF-28A—COMPONENT SIDE—  
1-622-574-22, 23, 24  
BVW-60P  
BVW-65P  
BVW-95P



BF-28A—SOLDERING SIDE—  
1-622-574-22, 23, 24  
BVW-60P  
BVW-65P  
BVW-95P



VR-42 — COMPONENT SIDE —  
1-622-592-11, 12  
BVW-60P  
BVW-65P  
BVW-95P



Up to S/N 11851

CP-111 (1-622-571-12)

REF. NO	TYPE	PIN NO.	
		+12V	-12V
IC 31	NJM4560D-D	8	4
IC 32	CK770	*	*
IC 33	NJM4560D-D	8	4
IC 34	NJM4560D-D	8	4
IC 35	NJM4560D-D	8	4
IC 36	CK770	*	*
IC 37	NJM4560D-D	8	4
IC 38	CK770	*	*
IC 39	NJM4560D-D	8	4
IC 40	NJM4560D-D	8	4

\*REFER TO SCHEMATIC

S/N 11852 through 12854

CP-111 (1-622-571-13)

REF. NO	TYPE	PIN NO.		
		+12V	+5V	-12V
IC 31	NJM4560D-D	8		4
IC 32	TC4016BP	8	14	7
IC 33	NJM4560D-D	8		4
IC 34	NJM4560D-D	8		4
IC 35	NJM4560D-D	8		4
IC 36	TC4016BP	8	14	7
IC 37	NJM4560D-D	8		4
IC 38	TC4016BP	8	14	7
IC 39	NJM4560D-D	8		4
IC 40	NJM4560D-D	8		4
IC 41	TC4016BP	8	14	7
IC 42	NJM78L05	*	*	*

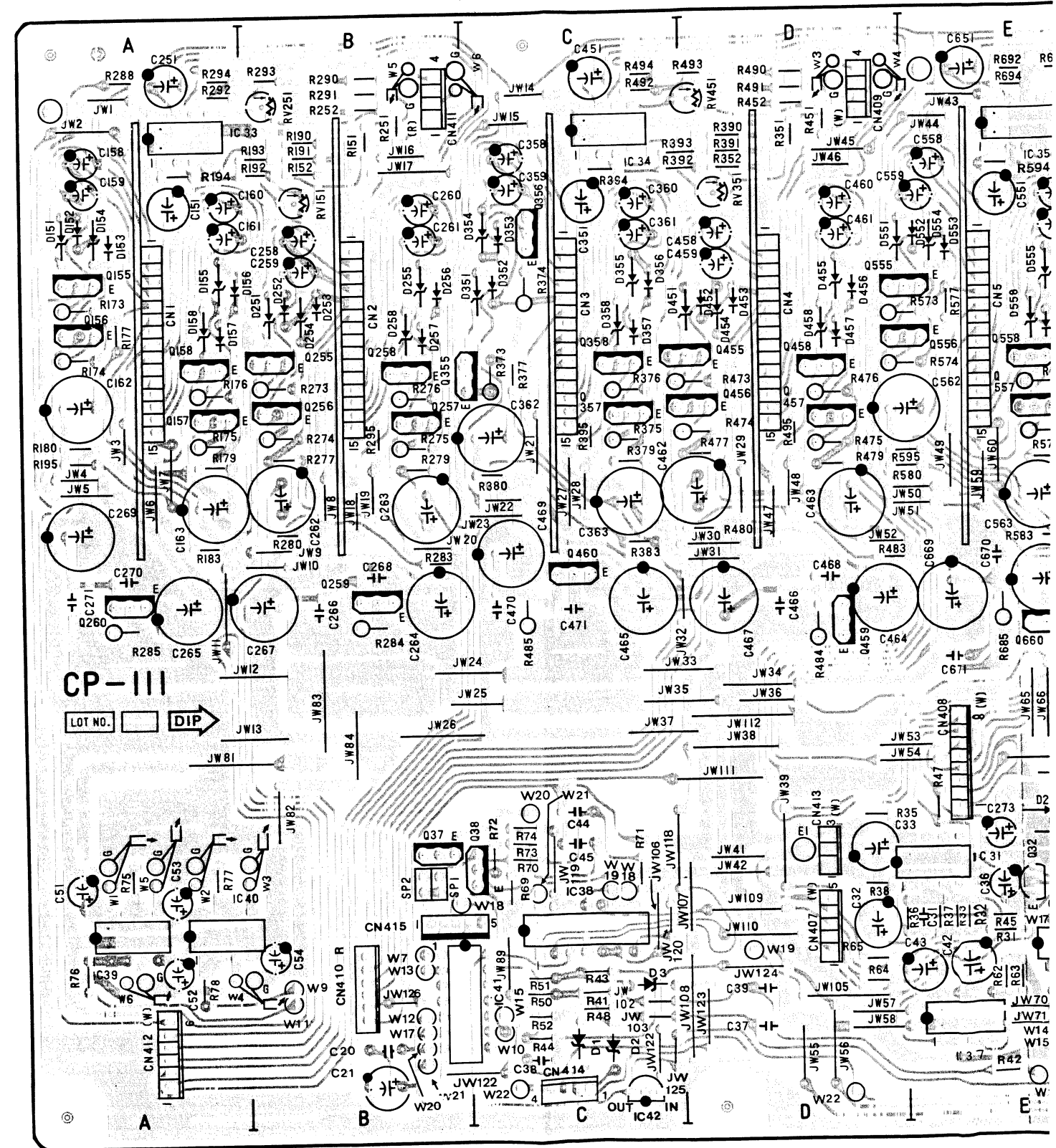
\*REFER TO SCHEMATIC

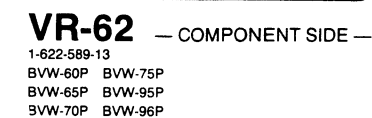
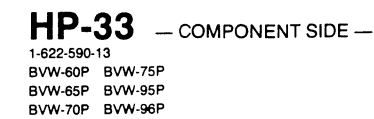
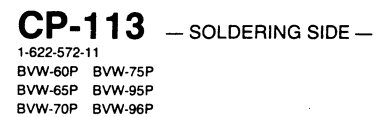
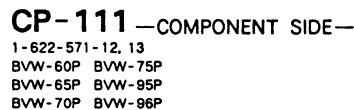
CP-111 (1-622-571-12,13)

CN1	A-3	E1	D-6
CN2	B-3	E2	F-6
CN3	C-3	E3	E-5
CN4	D-3	E4	F-6
CN5	E-3		
CN6	F-3	IC31	E-6
CN407	D-6	IC32	F-6
CN408	E-5	IC33	A-1
CN409	D-1	IC34	C-1
CN410	B-7	IC35	E-1
CN411	B-1	IC36	E-6
CN412	A-7	IC37	E-7
CN413	D-6	IC38	C-6
CN414	C-7	IC39	A-6
CN415	B-6	IC40	A-6
		IC41	B-7
		IC42	C-7
D151	A-2	Q31	F-3
D152	A-2	Q32	E-6
D153	A-2	Q33	F-7
D154	A-2	Q34	F-2
D155	A-2	Q35	F-7
D156	A-3	Q36	F-3
D157	A-3	Q37	B-6
D158	A-3	Q38	C-6
D251	B-2	Q155	A-2
D252	B-2	Q156	A-2
D253	B-2	Q157	A-3
D254	B-2	Q158	A-3
D255	B-2	Q255	B-3
D256	B-2	Q256	B-3
D257	B-3	Q257	B-3
D258	B-3	Q258	B-3
D259	E-6	Q259	B-4
D260	E-6	Q260	A-4
D351	C-2	Q261	E-6
D352	C-2	Q355	C-3
D353	C-2	Q356	C-2
D354	C-2	Q357	C-3
D355	C-2	Q358	C-3
D356	C-2	Q455	D-3
D357	C-3	Q456	D-3
D358	C-3	Q457	D-3
D451	D-2	Q458	D-3
D452	D-2	Q459	D-4
D453	D-2	Q460	C-4
D454	D-2	Q555	E-2
D455	D-2	Q556	E-3
D456	D-2	Q557	E-3
D457	D-3	Q558	E-3
D458	D-3	Q655	E-3
D551	D-2	Q656	E-3
D552	E-2	Q657	F-5
D553	E-2	Q658	F-4
D554	E-2	Q659	F-5
D555	E-2	Q660	E-4
D556	E-2		
D557	E-3		
D558	E-2		
D651	E-2	RV151	B-2
D652	E-2	RV251	B-1
D653	F-2	RV351	D-2
D654	F-2	RV451	D-1
D655	F-4	RV551	F-2
D656	F-4	RV651	E-1
D657	F-4		
D658	F-4	SP1	B-6
		SP2	B-6

CP-111; AUDIO OUTPUT AMPLIFIER/DRIVER  
 CP-113; AUDIO BALANCED AMPLIFIER  
 HP-33; HEADPHONES AMPLIFIER/JACK  
 VR-62; HEADPHONES LEVEL VOLUME

Up to S/N 12854



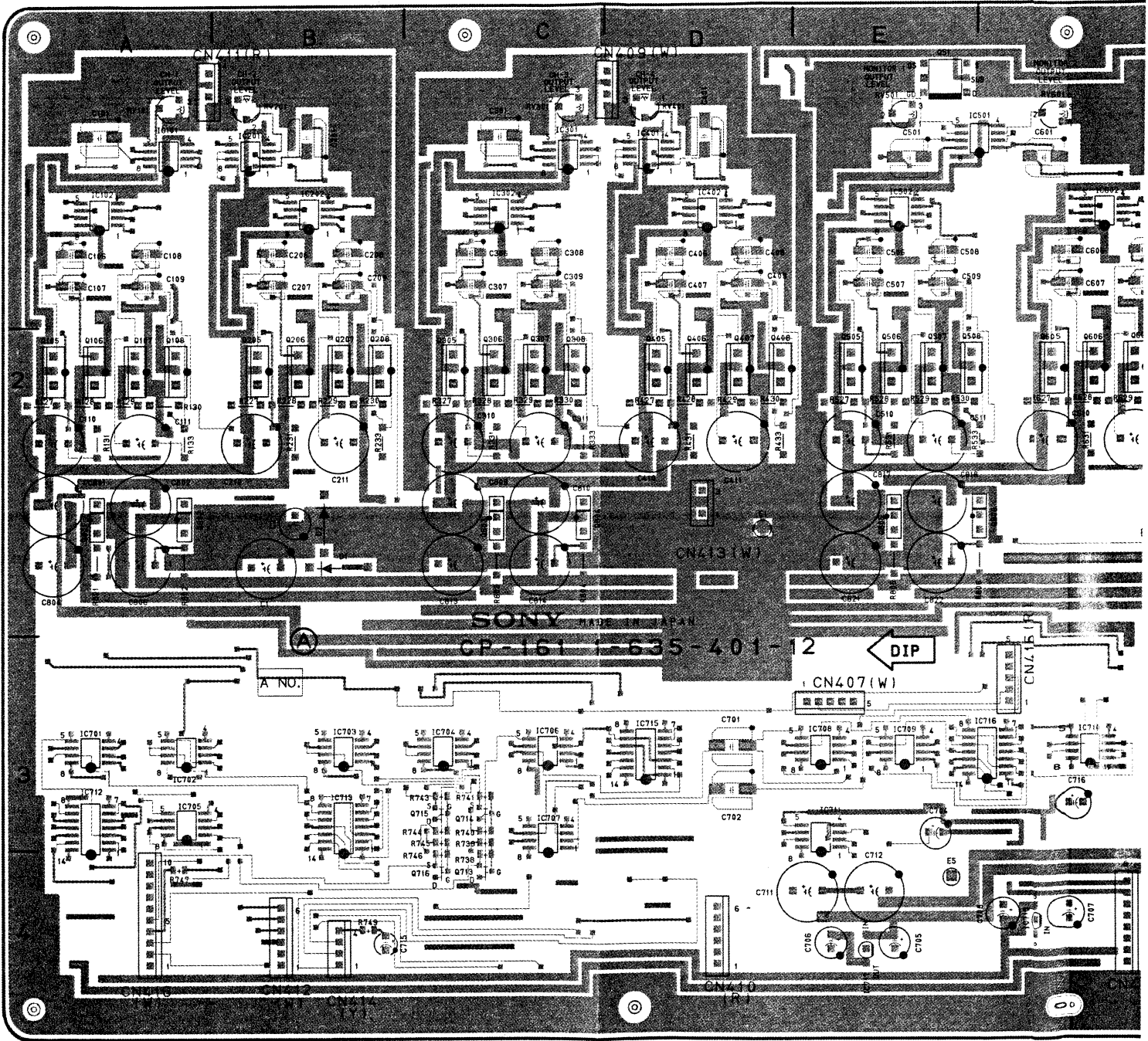


CP-161A (1-635-401-12)

CN407	E-3	D702	D-4	Q203	B-1	Q704	C-4
CN408	F-4	D703	B-3	Q204	B-1	Q705	D-4
CN409	D-1	D704	B-3	Q205	B-2	Q706	D-4
CN410	D-4	D705	A-3	Q206	B-2	Q707	D-4
CN411	B-1	D706	B-3	Q207	B-2	Q708	D-4
CN412	B-4	D707	C-3	Q208	B-2	Q709	B-4
CN413	D-2	D708	A-3	Q209	B-2	Q710	C-4
CN414	B-4	D709	C-4	Q210	B-2	Q711	A-4
CN415	F-3	D710	C-3	Q211	B-2	Q712	A-4
		D711	C-4	Q212	B-2	Q713	C-4
		D712	C-3	Q301	C-1	Q714	C-3
D1	B-2			Q302	C-1	Q715	C-3
D2	B-2			Q303	C-1	Q716	C-4
D101	A-1	E1	D-2	Q304	C-1	Q717	F-3
D102	A-1			Q305	C-2	Q718	F-3
D103	A-1	IC101	A-1	Q306	C-2	Q719	E-3
D104	A-1	IC102	A-1	Q307	C-2	Q720	C-4
D105	A-2	IC201	B-1	Q308	C-2	Q721	A-4
D106	A-2	IC202	B-1	Q309	C-2	Q722	C-4
D107	A-2	IC301	C-1	Q310	C-2	Q723	C-4
D108	A-2	IC302	C-1	Q311	C-2	Q724	C-4
D201	B-1	IC401	D-1	Q312	C-2	Q725	B-4
D202	B-1	IC402	D-1	Q401	D-1	Q726	A-3
D203	B-1	IC501	F-1	Q402	D-1	Q801	A-2
D204	B-1	IC502	E-1	Q403	D-1	Q802	A-2
D205	B-2	IC602	F-1	Q404	D-1	Q803	C-2
D206	B-2	IC701	A-3	Q405	D-2	Q804	C-2
D207	B-2	IC702	A-3	Q406	D-2	Q805	E-2
D208	B-2	IC703	B-3	Q407	D-2	Q806	E-2
D301	C-1	IC704	C-3	Q408	D-2		
D302	C-1	IC705	A-3	Q409	D-2	RV101	A-1
D303	C-1	IC706	C-3	Q410	D-2	RV201	B-1
D304	C-1	IC707	C-3	Q411	D-2	RV301	C-1
D305	C-2	IC708	E-3	Q412	D-2	RV401	D-1
D306	C-2	IC709	E-3	Q501	E-1	RV501	E-1
D307	C-2	IC710	F-3	Q502	E-1	RV601	F-1
D308	C-2	IC711	E-3	Q503	E-1		
D401	D-1	IC712	A-3	Q504	E-1		
D402	D-1	IC713	B-3	Q505	E-2		
D403	D-1	IC715	D-3	Q506	E-2		
D404	D-1	IC716	F-3	Q507	E-2		
D405	D-2	IC717	E-4	Q508	E-2		
D406	D-2	IC718	F-4	Q509	E-2		
D407	D-2			Q510	E-2		
D408	D-2	Q1	B-2	Q511	E-2		
D501	E-1	Q51	E-1	Q512	E-2		
D502	E-1	Q52	F-1	Q601	F-1		
D503	E-1	Q53	D-1	Q602	F-1		
D504	E-1	Q101	A-1	Q603	F-1		
D505	E-2	Q102	A-1	Q604	F-1		
D506	E-2	Q103	A-1	Q605	F-2		
D507	E-2	Q104	A-1	Q606	F-2		
D508	E-2	Q105	A-2	Q607	F-2		
D601	F-1	Q106	A-2	Q608	F-2		
D602	F-1	Q107	A-2	Q609	F-2		
D603	F-1	Q108	A-2	Q610	F-2		
D604	F-1	Q109	A-2	Q611	F-2		
D605	F-2	Q110	A-2	Q612	F-2		
D606	F-2	Q111	A-2	Q701	D-4		
D607	F-2	Q112	A-2	Q702	D-4		
D608	F-2	Q201	B-1	Q703	C-4		
D701	C-4	Q202	B-1				

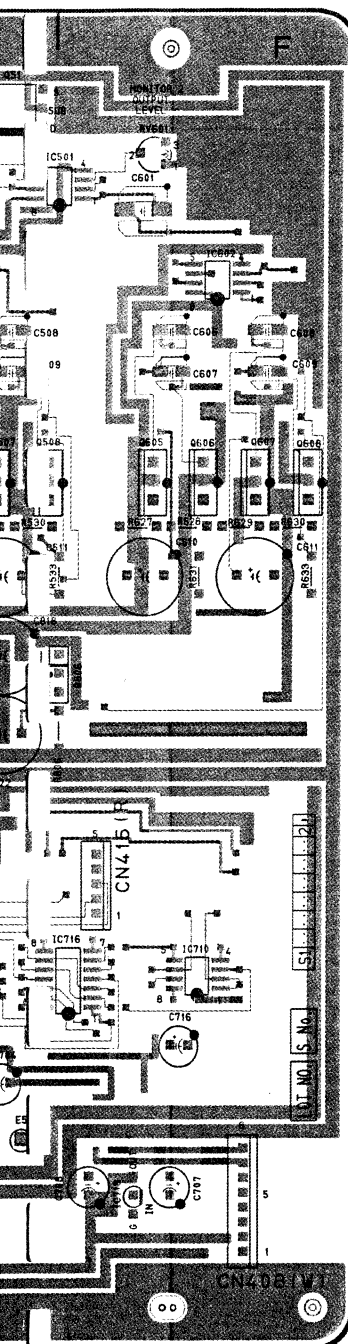
CP-161A; AUDIO OUTPUT BALANCED AMPLIFIER/DRIVER  
HP-33; HEADPHONES AMPLIFIER/JACK  
VR-62; HEADPHONES LEVEL VOLUME

S/N 12855 and higher

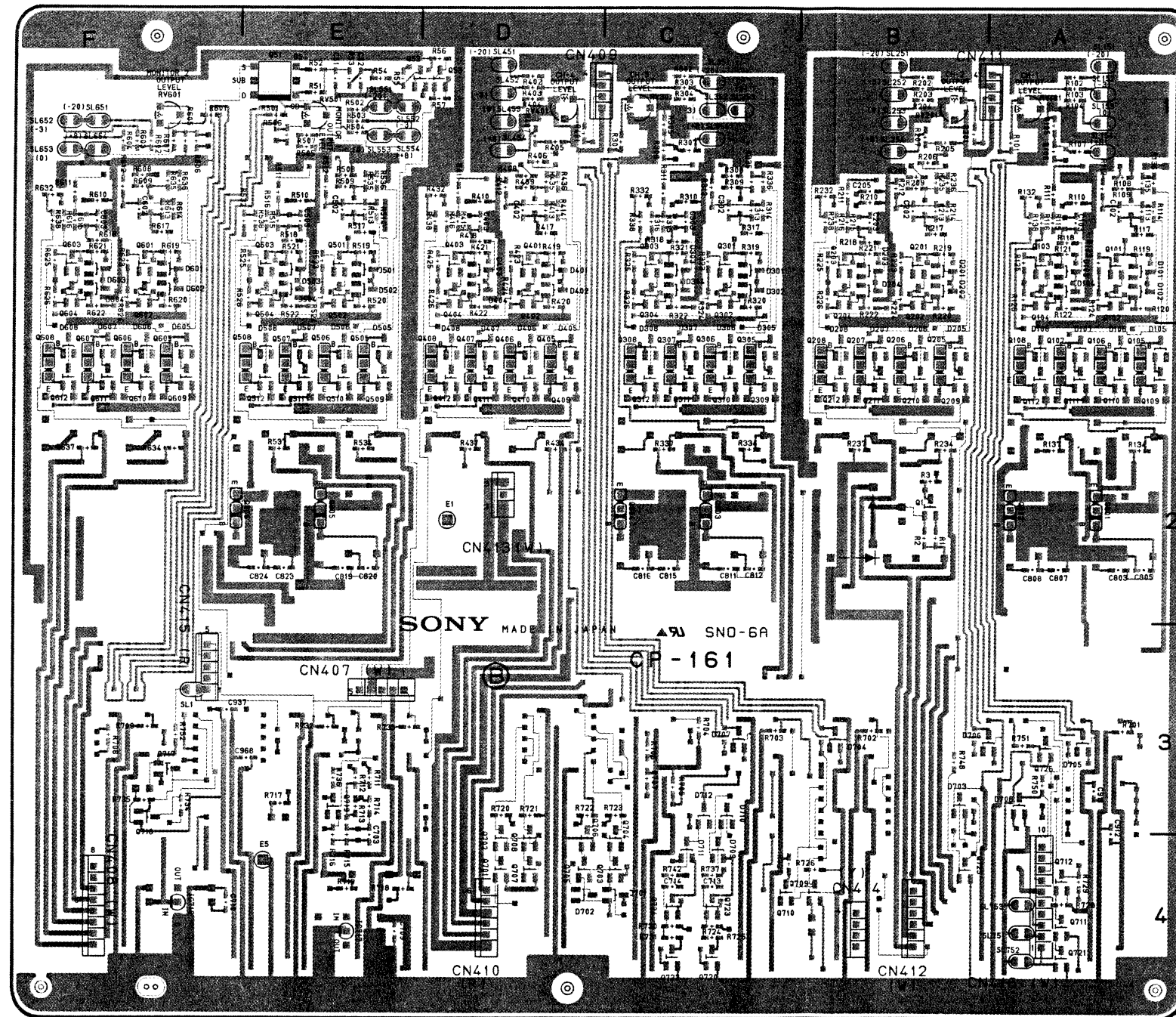


CP-161A  
1-635-01-12  
BVW-7: SERIES

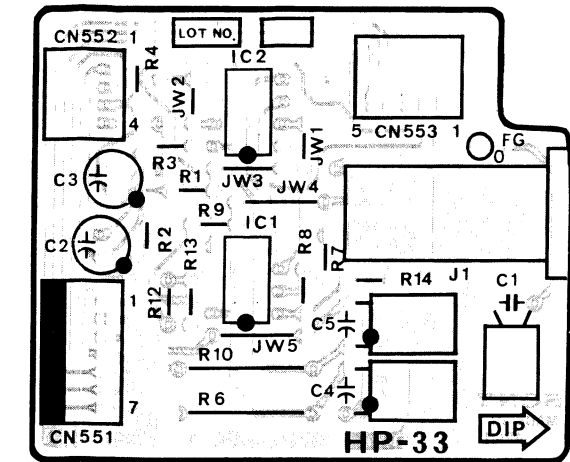




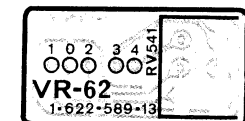
**CP-161A** —A SIDE—  
1-635-401-12  
BVW-75 SERIES



**CP-161A** —B SIDE—  
1-635-401-12  
BVW-75 SERIES



**HP - 33** —COMPONENT SIDE—  
1-622-590-13  
BVW-75 SERIES



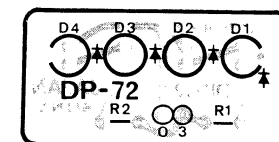
**VR-62** —COMPONENT SIDE—  
1-622-589-13  
BVW-75 SERIES

SW-144A; SELECT SWITCH/DISPLAY

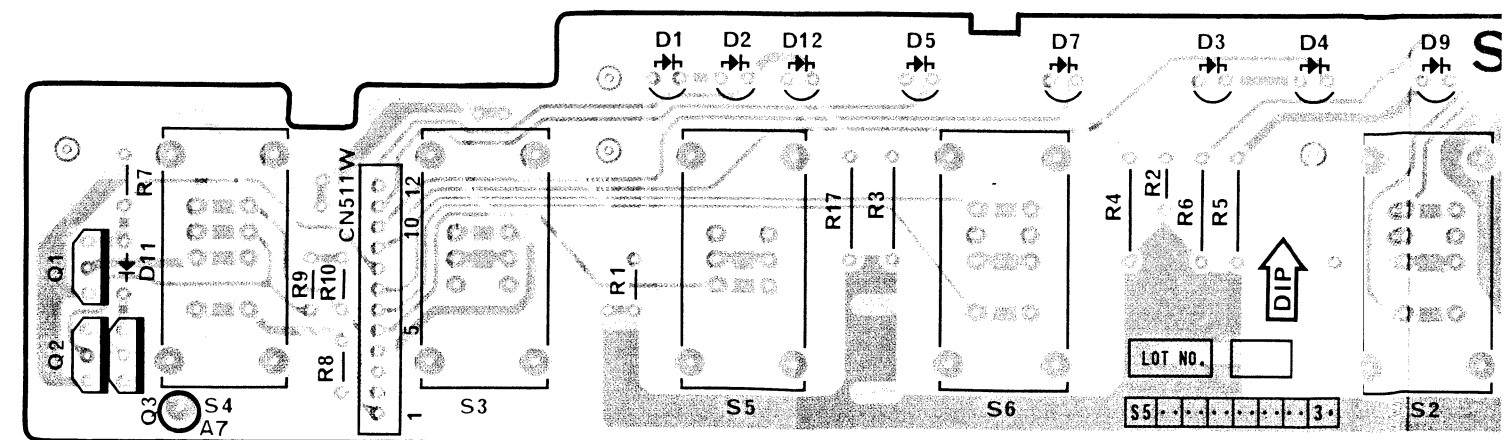
DP-72; RF METER LED

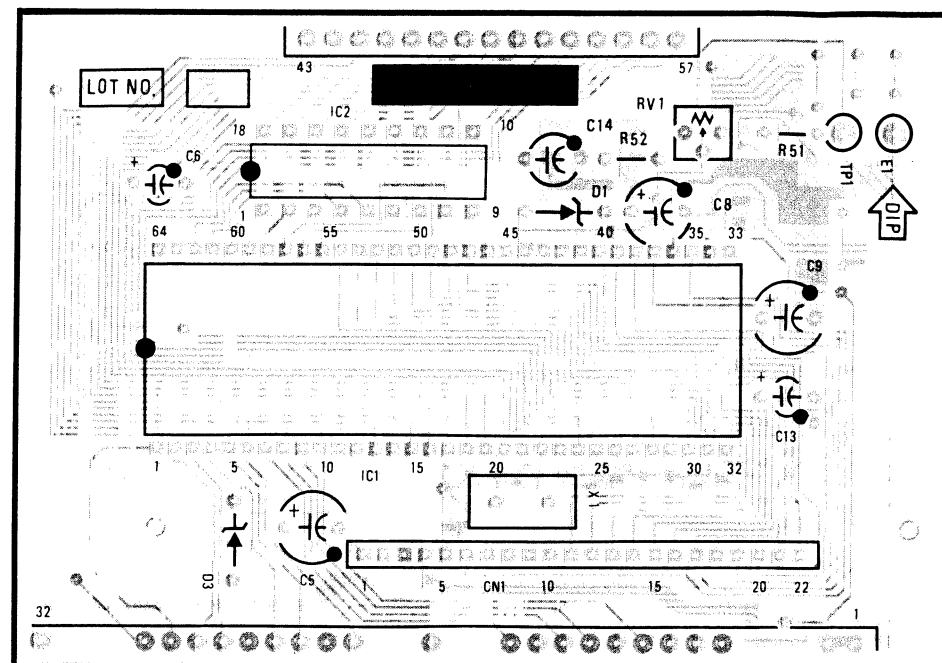
DP-74; AUDIO LEVEL METER CONTROLLER/DRIVER

DP-73; DC-AC/DC CONVERTER

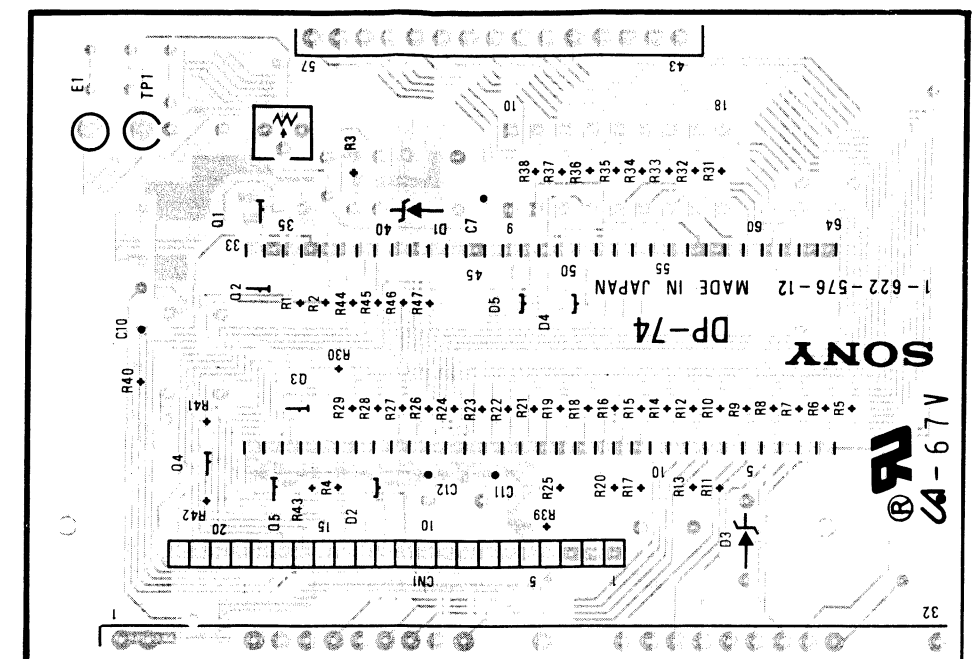


**DP-72** — COMPONENT SIDE —  
 1-622-591-12  
 BVW-65P

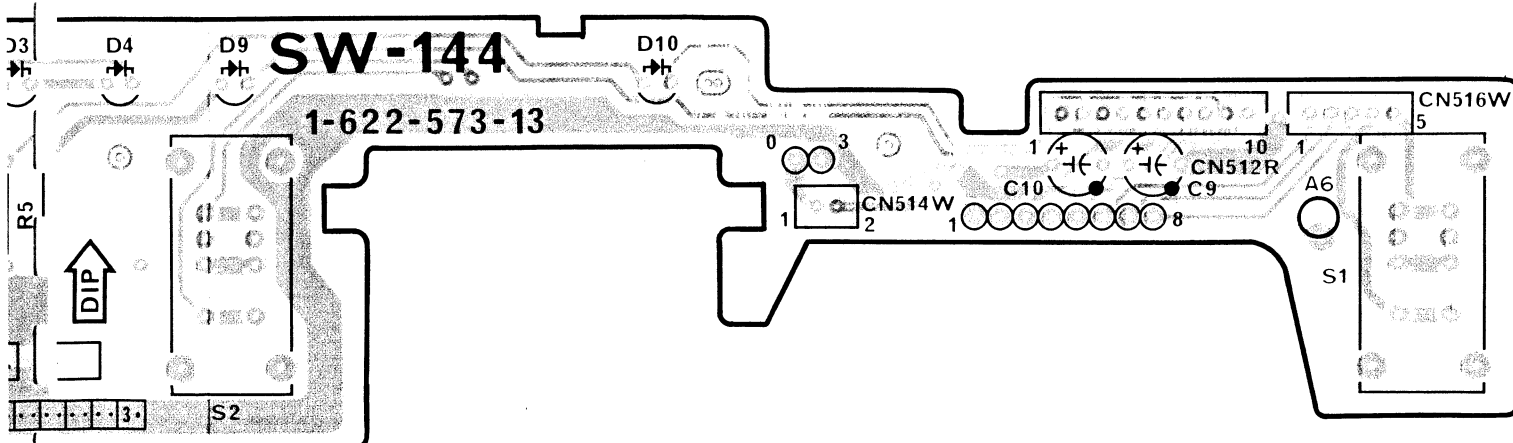




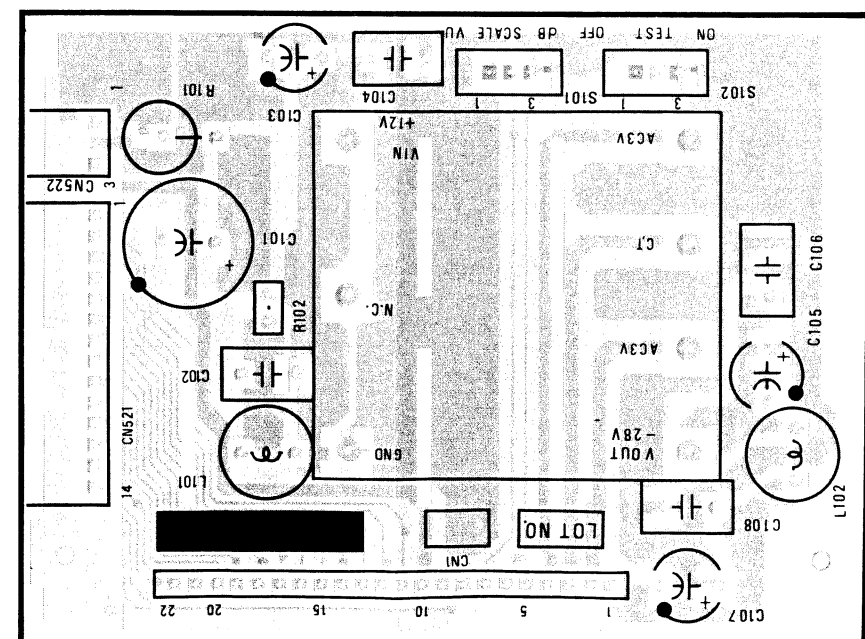
**DP-74** — COMPONENT SIDE —  
1-622-576-12  
BVW-65P



**DP-74** — SOLDERING SIDE —  
1-622-576-12  
BVW-65P



**SW-144A** — COMPONENT SIDE —  
1-622-573-13  
BVW-65P



**DP-73** — SOLDERING SIDE —  
1-622-575-12  
BVW-65P

## SV-82/82A; MICROCOMPUTER SERVO

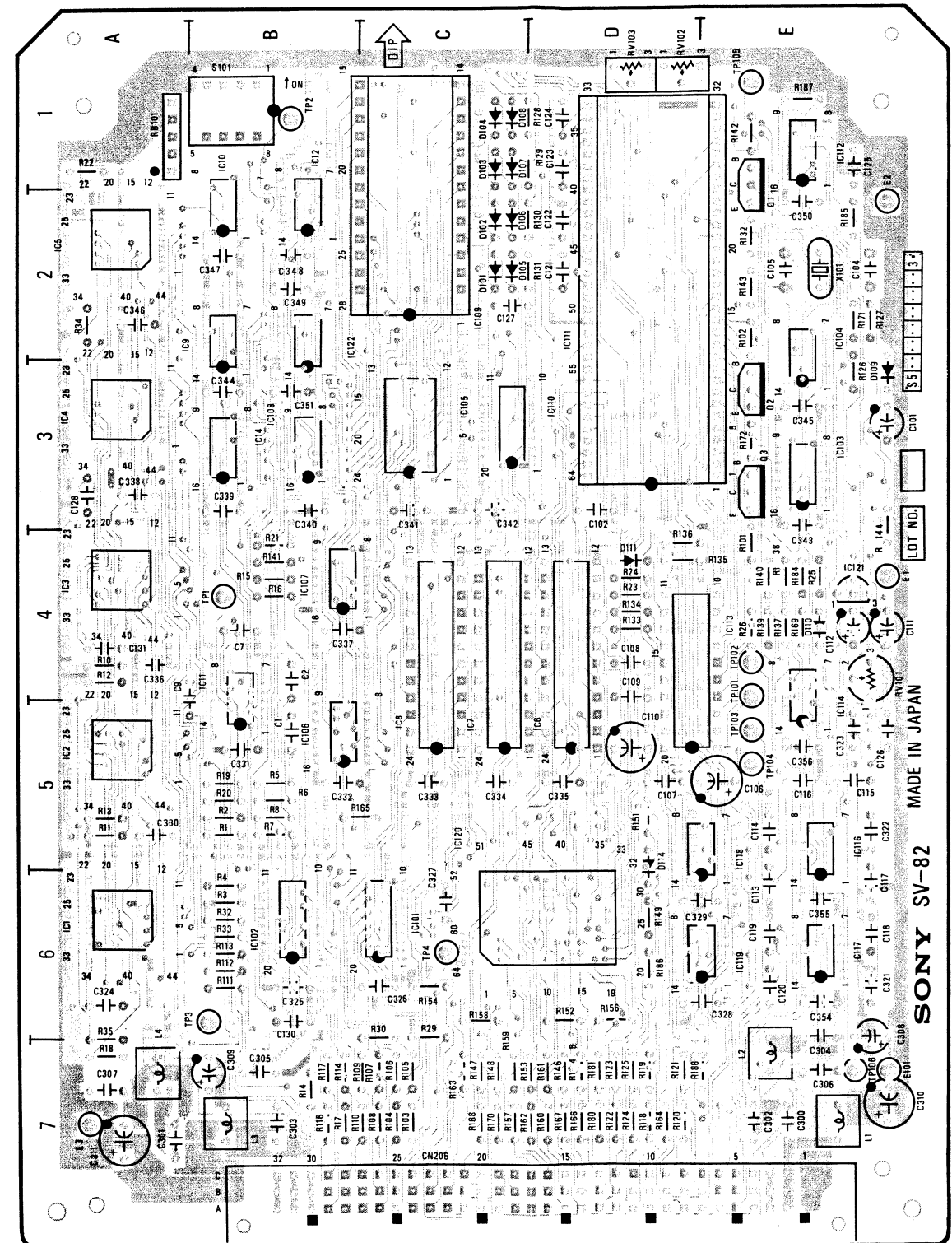
SV-82/82A (1-622-582-13)

REF. NO.	TYPE	PIN NO.				
		+12V	+5V	GND	-5V	-12V
IC 1	$\mu$ PD71054G		38	16		
IC 2	$\mu$ PD71054G		38	16		
IC 3	$\mu$ PD71054G		38	16		
IC 4	$\mu$ PD71054G		38	16		
IC 5	$\mu$ PD71054G		38	16		
IC 6	CFX77074NT		23.24	9.12		
IC 7	CFX77074NT		23.24	9.12		
IC 8	CFX77074NT		23.24	9.12		
IC 9	TC74HC74F		14	7		
IC 10	SN74HC4024NS		14	7		
IC 11	TC74HC14F		14	7		
IC 12	TC74HC14F		14	7		
IC 14	TC4053BF		16	7.8		
IC 101	TC74HC245NS		20	10		
IC 102	TC74HC244F		20	10		
IC 103	TC4052BF		16	8		
IC 104	TC74HC04F		14	6.7		
IC 105	CXK5816M-12L		24	12		
IC 106	TCX74HC138F		16	8		
IC 107	TCX74HC138F		16	8		
IC 108	TCX74HC139F		16	8		
IC 109	27256-25		28	14		
IC 110	SN74HC373NS		20	10		
IC 111	$\mu$ PD78310CM		64	32		
IC 112	SN74HC4040NS		16	8		
IC 113	$\mu$ PC648C	20				17
IC 114	TL084CNS	4				11
IC 116	TL084CNS	4				11
IC 117	TL084CNS	4				11
IC 118	TC4066BF		14	7		
IC 119	TC4066BF		14	7		
IC 120	CXD1095Q		58	10.27.42.57	26	
IC 121	NJM78L09A			2		
IC 122	TC74HC08F		14	7		

SV-82/82A (1-622-582-13)

CN206	C-7	Q1	E-2
D101	C-2	Q2	E-3
D102	C-2	Q3	E-3
D103	C-1	RV101	E-4
D104	C-1	RV102	D-1
D105	C-2	RV103	D-1
D106	C-2		
D107	C-1	S101	B-1
D108	C-1		
D109	E-3	TP1	B-4
D110	E-4	TP2	B-1
D111	D-4	TP3	B-6
D114	D-5	TP4	C-6
		TP101	E-4
E1	E-4	TP102	E-4
E2	E-2	TP103	E-5
E3	A-7	TP104	E-5
E101	E-7	TP105	E-1
		TP106	E-7
IC1	A-6	X101	E-2
IC2	A-5		
IC3	A-4		
IC4	A-3		
IC5	A-2		
IC6	D-4		
IC7	C-4		
IC8	C-4		
IC9	B-2		
IC10	B-2		
IC11	B-4		
IC12	B-2		
IC14	B-3		
IC101	C-6		
IC102	B-6		
IC103	E-3		
IC104	E-2		
IC105	C-3		
IC106	B-5		
IC107	B-4		
IC108	B-3		
IC109	C-2		
IC110	C-3		
IC111	D-2		
IC112	E-1		
IC113	D-4		
IC114	E-4		
IC116	E-5		
IC117	E-6		
IC118	D-5		
IC119	D-6		
IC120	C-6		
IC121	E-4		
IC122	B-2		

	SV-82	SV-82A
BVW-60P		○
BVW-65P		○
BVW-70P	○	
BVW-75P	○	
BVW-95P		○
BVW-96P	○	

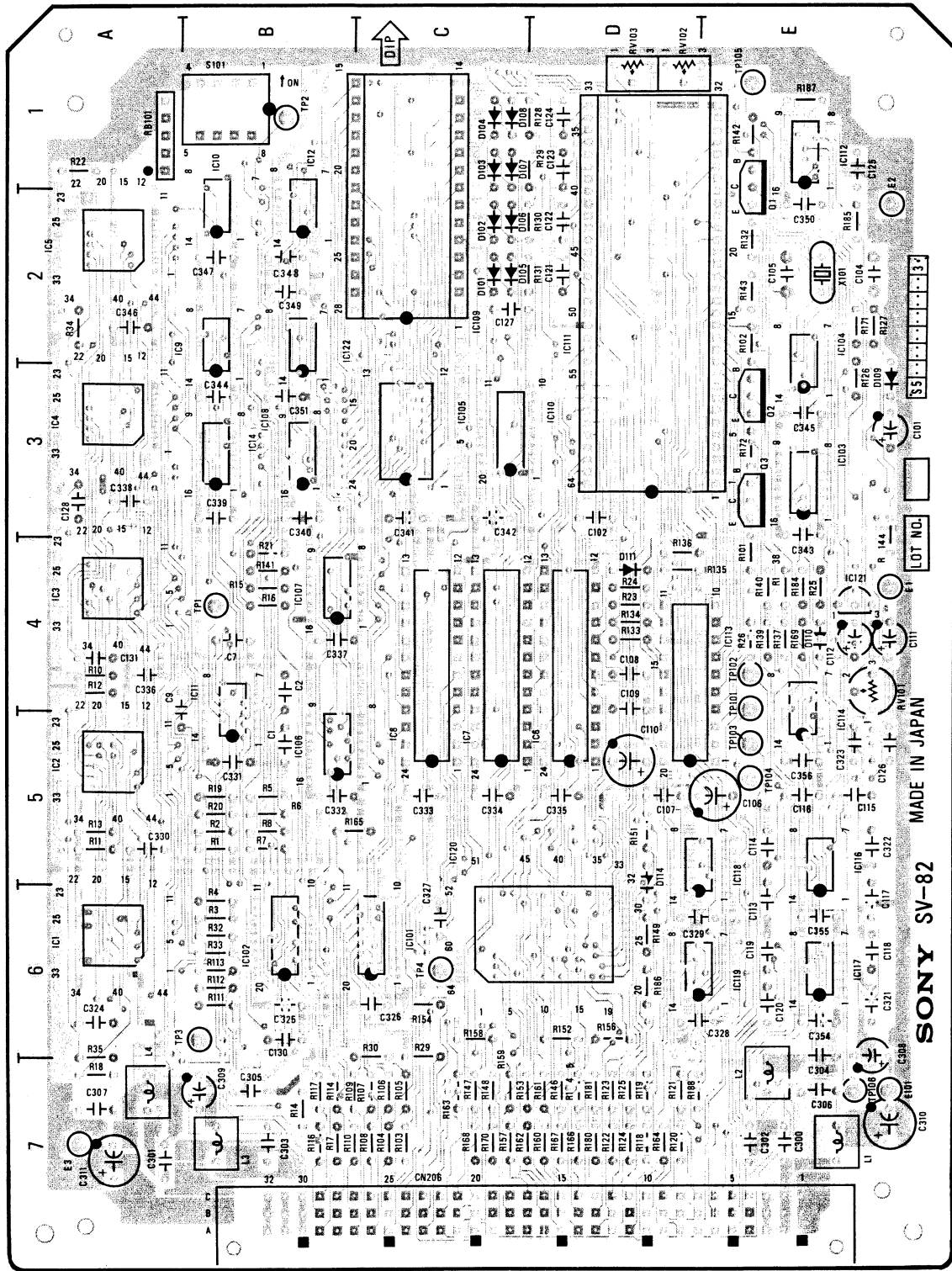


## SV-82/82A — COMPONENT SIDE —

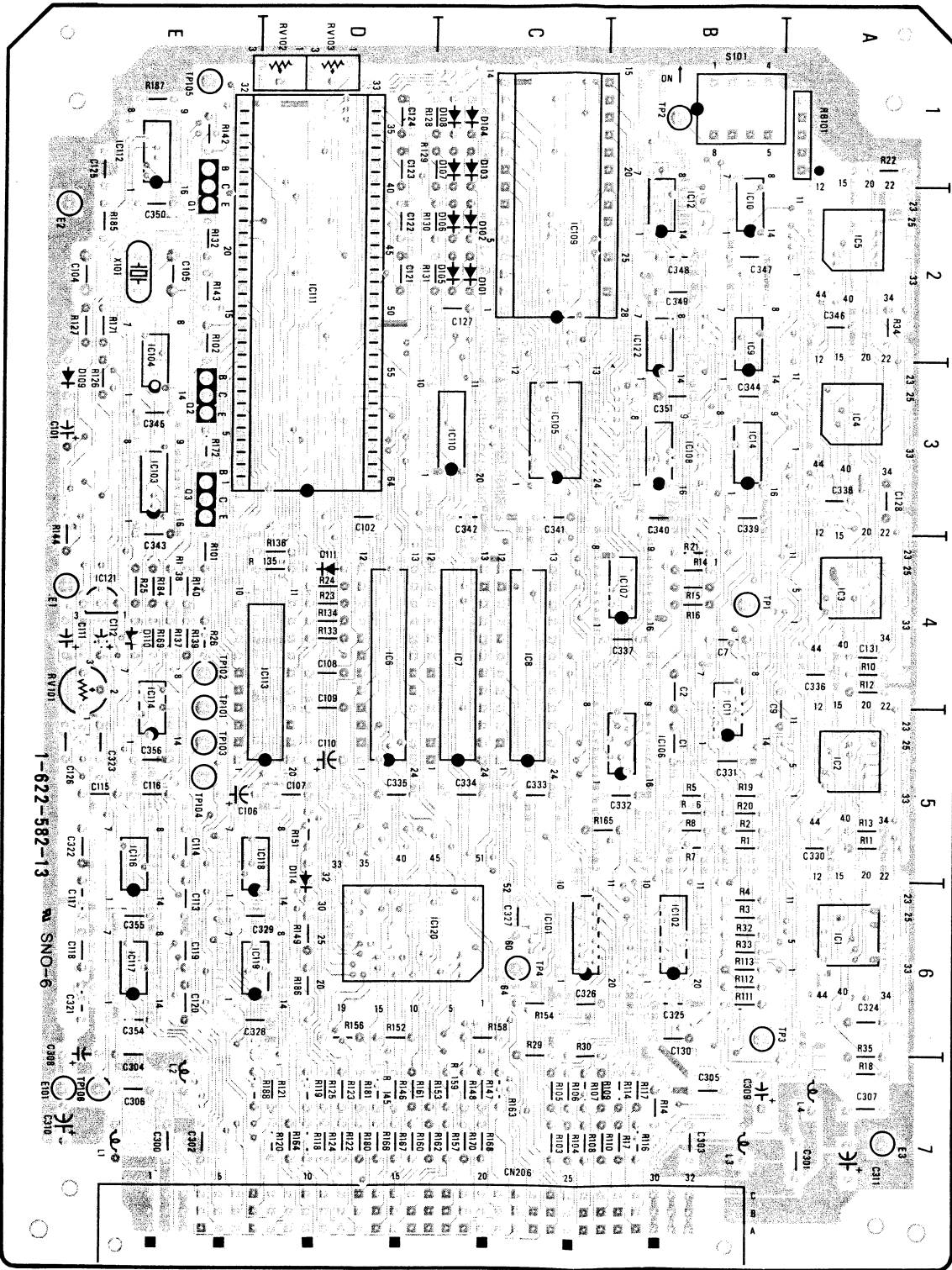
1-622-582-13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



SV-82/82A; MICROCOMPUTER SERVO



SV-82/82A — COMPONENT SIDE —  
1-622-582-13  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



SV-82/82A — SOLDERING SIDE —  
1-622-582-13  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



## SV-83/83A/83B; REEL SERVO

SV-83/83A/83B (1-622-583-12,13)

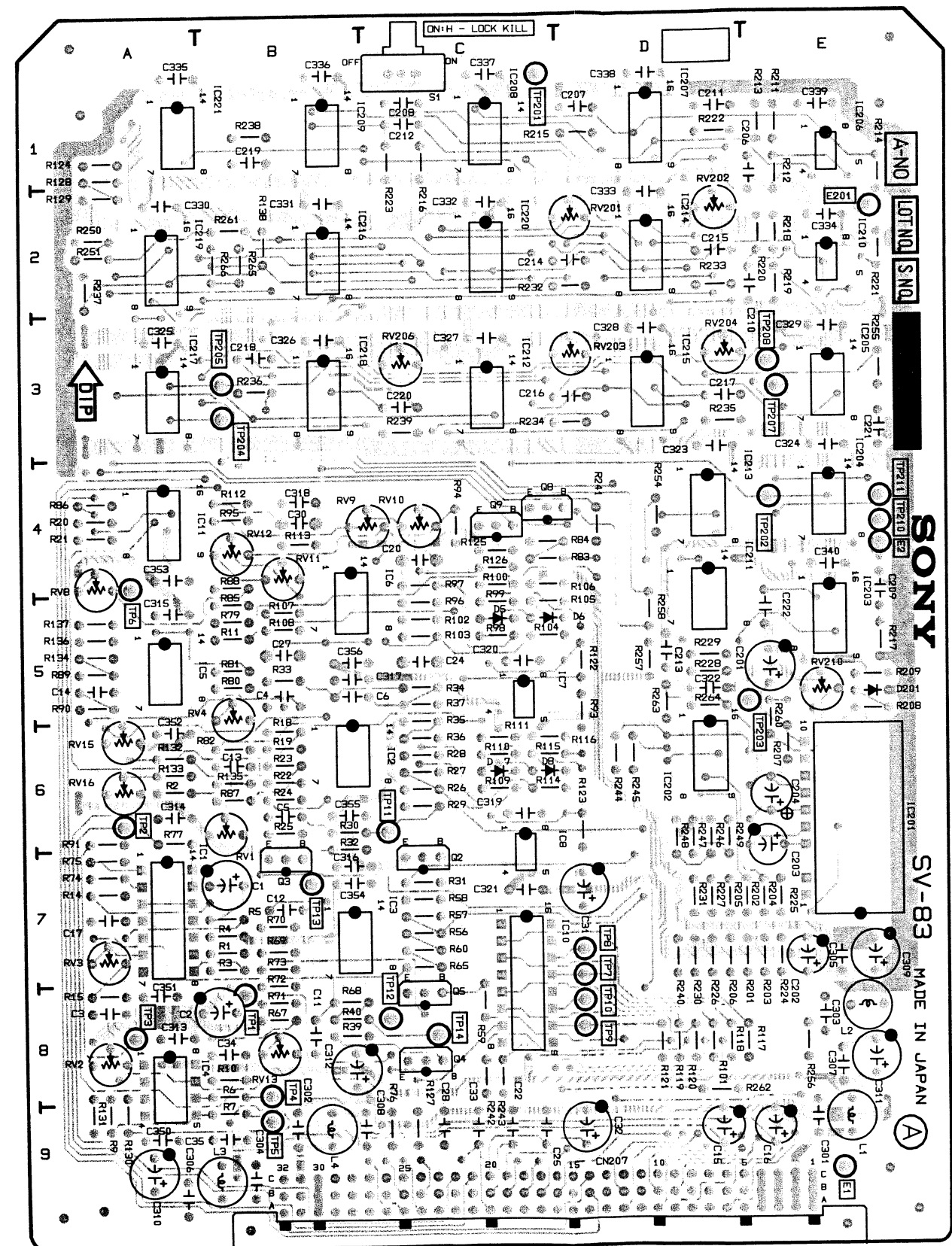
REF. NO.	TYPE	PIN NO.				
		+12V	+5V	GND	-5V	-12V
IC 1	$\mu$ PC324C	4			11	
IC 2	TL084CNS	4				11
IC 3	TL084CNS	4				11
IC 4	NJM4558D FA	8			4	
IC 5	TL084CNS	4			11	
IC 6	TL084CNS	4				11
IC 7	NJM2903M	8		4		
IC 8	NJM2903M	8		4		
IC 10	CX23028		12, 16	8		
IC 11	TC4053BFHB		16		7	
IC 201	BX3915A	*		2, 8		
IC 202	TC4053BFHB		16	7, 8		
IC 203	TC4538BF		16	8		
IC 204	TC504013BF		14	7		
IC 205	TC4081BF		14	7		
IC 206	NJM2903M	8		4		
IC 207	TC4538BF		16	8		
IC 208	TC4024BF		14	7		
IC 209	TC4024BF		14	7		
IC 210	NJM2903M		8	4		
IC 211	TC4011BF		14	7		
IC 212	TC4011BF		14	7		
IC 213	TC504013BF		14	7		
IC 214	TC4538BF		16	8		
IC 215	TC4538BF		16	8		
IC 216	TC504013BF		14	7		
IC 217	TC504013BF		14	7		
IC 218	TC4538BF		16	8		
IC 219	TC4053BFHB		16		7	
IC 220	TC74HC160RF		16	8		
IC 221	TC4030BF		14	7		

\* REFER TO SCHEMATIC

	SV-83	SV-83A	SV-83B
BVW-60P			○
BVW-65P			○
BVW-70P		○	
BVW-75P	○		
BVW-95P			○
BVW-96P	○		

SV-83/83A/83B (1-622-583-12,13)

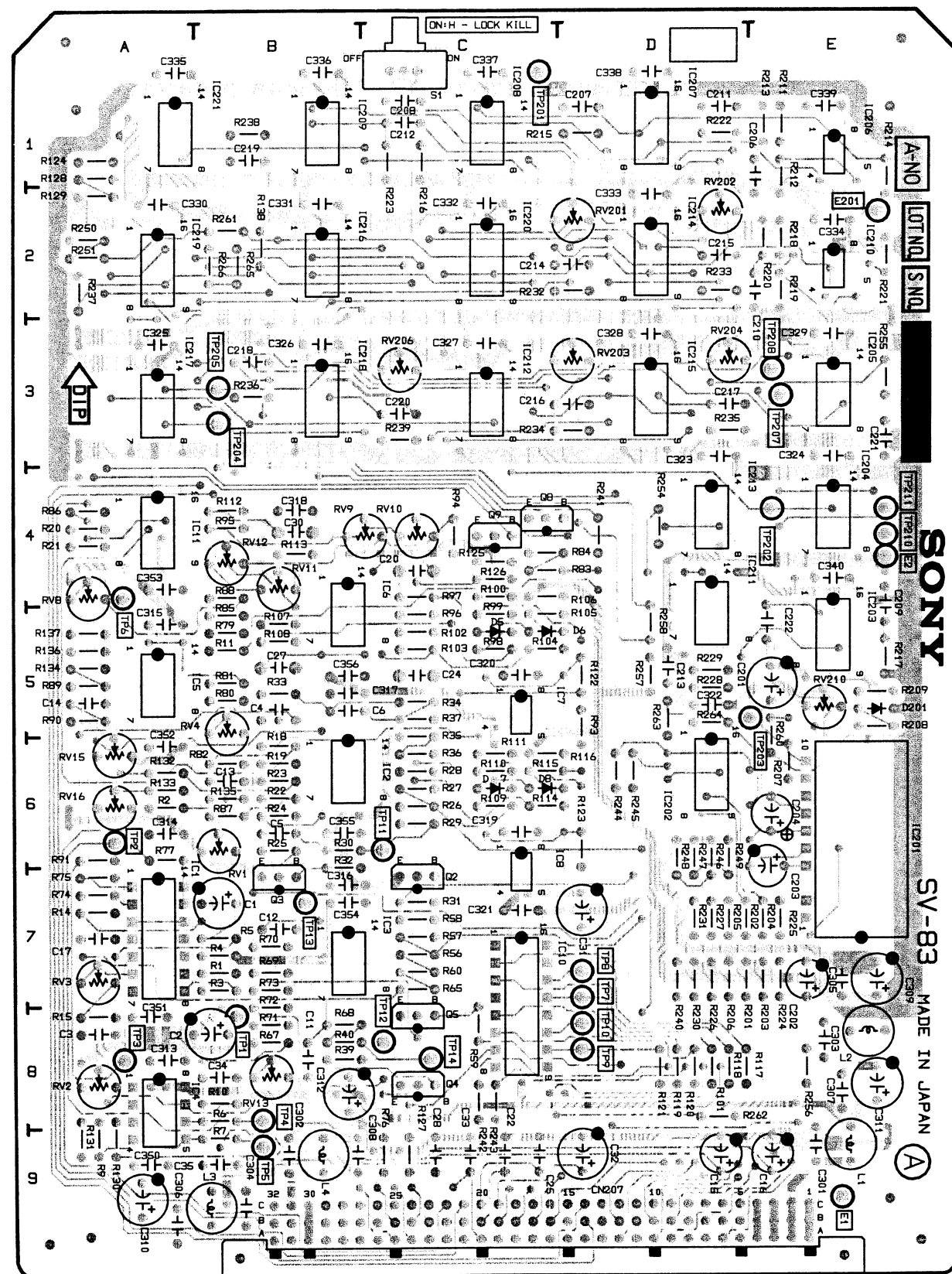
CN207	D-9	TP1	A-8
D5	C-5	TP2	A-6
D6	C-5	TP3	A-8
D7	C-6	TP4	B-9
D8	C-6	TP5	B-9
D201	E-5	TP6	A-4
		TP7	D-8
		TP8	D-7
E1	E-9	TP9	D-8
E2	E-4	TP10	D-8
E201	E-2	TP11	B-6
		TP12	B-8
IC1	A-7	TP13	B-7
IC2	B-6	TP14	C-8
IC3	B-7	TP201	C-1
IC4	A-8	TP202	E-4
IC5	A-5	TP203	E-6
IC6	B-5	TP204	A-3
IC7	C-5	TP205	A-3
IC8	C-7	TP207	E-3
IC10	C-8	TP208	E-3
IC11	A-4	TP210	E-4
IC201	E-6	TP211	E-4
IC202	D-6		
IC203	E-5		
IC204	E-4		
IC205	E-3		
IC206	E-1		
IC207	D-1		
IC208	C-1		
IC209	B-1		
IC210	E-2		
IC211	D-5		
IC212	C-3		
IC213	D-4		
IC214	D-2		
IC215	D-3		
IC216	B-2		
IC217	A-3		
IC218	B-3		
IC219	A-2		
IC220	C-2		
IC221	A-1		
Q2	C-7		
Q3	B-7		
Q4	C-8		
Q5	C-8		
Q8	C-4		
Q9	C-4		
RV1	B-7		
RV2	A-8		
RV3	A-7		
RV4	A-5		
RV8	A-4		
RV9	B-4		
RV10	C-4		
RV11	B-4		
RV12	A-4		
RV13	B-8		
RV15	A-6		
RV16	A-6		
RV201	D-2		
RV202	D-2		
RV203	D-3		
RV204	D-3		
RV206	B-3		
RV210	E-5		
S1	A-3		



SV-83/83A/83B — COMPONENT SIDE —

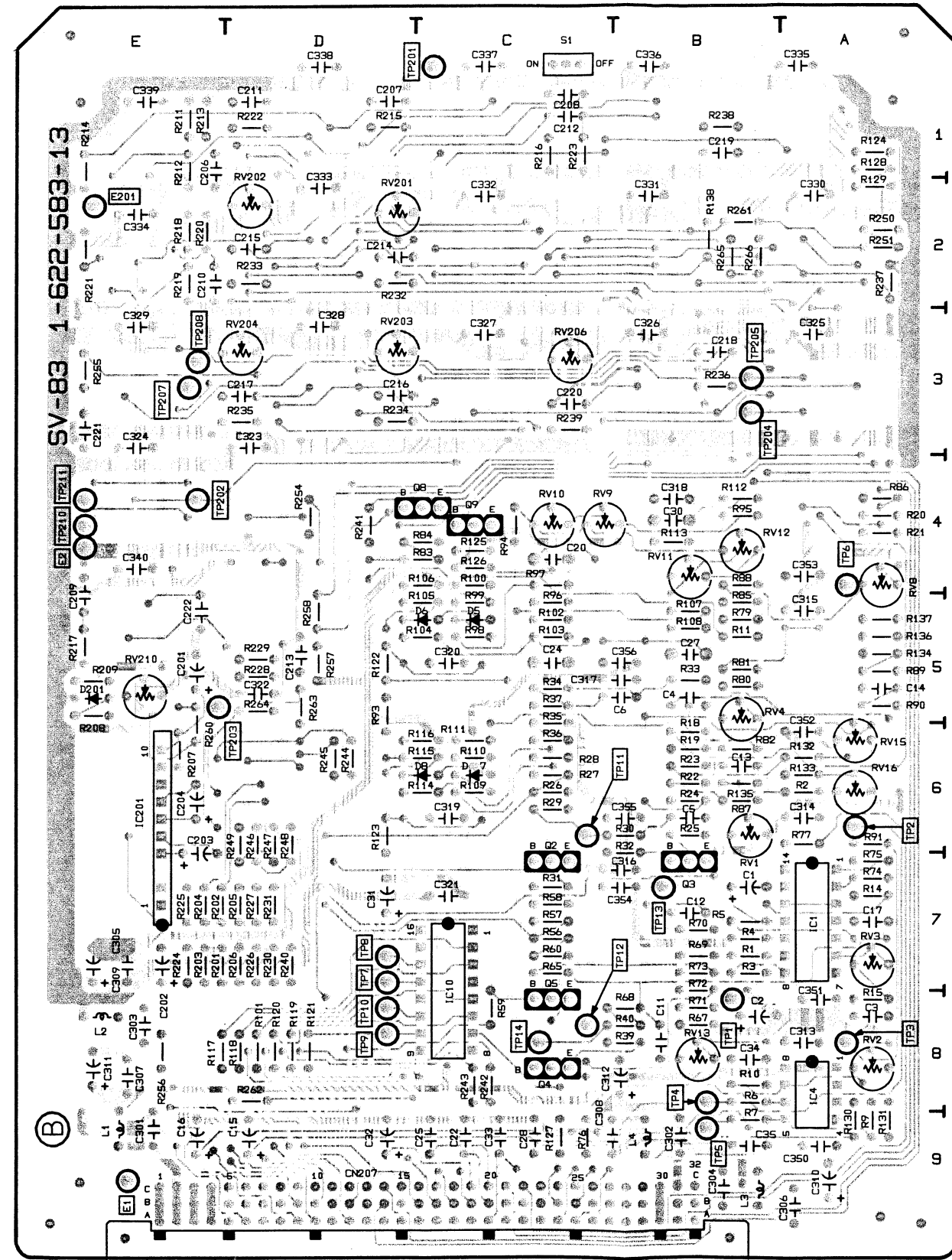
1-622-583-12,13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

SV-83/83A/83B; REEL SERVO



**SV-83/83A/83B** — COMPONENT SIDE —

1-622-583-12,13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



**SV-83/83A/83B** — SOLDERING SIDE —

1-622-583-12, 13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

## SV-84P; CAPSTAN/DRUM SERVO

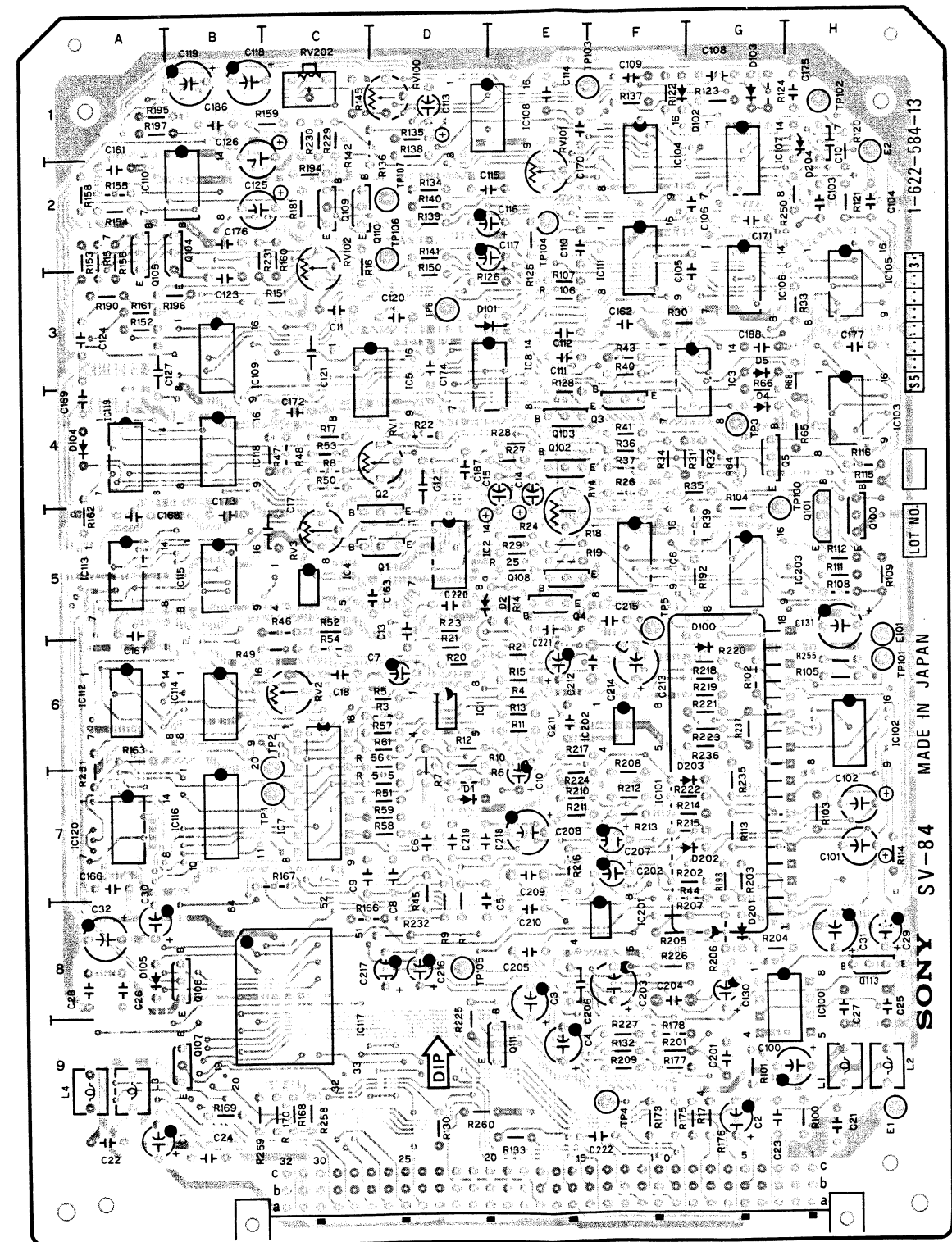
SV-84P (1-622-584-13)

PRE. NO	TYPE	PIN NO.					
		V REF.	+12V V	+5V	GND	-5V	-12V
IC 1	NJM2903M	8			4		
IC 2	TL084CNS		4			11	
IC 3	TL084CNS		4			11	
IC 4	NJM2903M		8		4		
IC 5	TC4538BF			16	8		
IC 6	TC4053BFHB		16		8	7	
IC 7	CX23028			12, 16	8		
IC 8	TC4011BF			14	7		
IC 100	NJM4558D-D	*	8		*	*	*
IC 101	BX3914	*	*	*	17	*	*
IC 102	TC4053BFHB		16		8		
IC 103	TC4053BFHB		16		8		
IC 104	TC4053BFHB		16		8		
IC 105	TC4538BF			16	8		
IC 106	TC4001BF			14	7		
IC 107	TC4071BF			14	8		
IC 108	TC4538BF			16	8		
IC 109	SN74LS221NS			16	8		
IC 110	TL084CNS		4		8		11
IC 111	TC4538BF			16	8		
IC 112	TC40H000F			14	7		
IC 113	TC40H000F			14	7		
IC 114	SN74HC193F			16	8		
IC 115	SN74HC193F			16	8		
IC 116	SN74LS683NS			20	10		
IC 117	CXD1095Q			26, 58	10, 25, 42, 57		
IC 118	TC74HC4049F			1	8		
IC 119	TC74HC74F			14	7		
IC 120	TC74HC32F			14	7		
IC 201	NJM2903M			8	4		
IC 202	NJM2903M		16		8		
IC 203	TC4053BFHB				8		

\*REFER TO SCHEMATIC

SV-84P (1-622-584-13)

CN208	E-9	Q1	D-5
D1	D-7	Q2	D-5
D2	D-5	Q3	F-4
D4	G-4	Q4	E-5
D5	G-3	Q5	G-4
D100	G-6	Q100	H-5
D101	D-3	Q101	H-5
D102	F-1	Q102	E-4
D103	G-1	Q103	E-4
D104	A-4	Q104	B-2
D105	A-8	Q105	A-2
D201	G-8	Q106	B-8
D202	F-7	Q107	B-9
D203	F-7	Q108	E-5
D204	H-1	Q109	C-2
		Q110	C-2
		Q111	D-9
		Q113	H-8
E1	H-9	RV1	D-4
E2	H-1	RV2	C-6
E101	H-6	RV3	C-5
IC1	D-6	RV4	E-5
IC2	D-5	RV100	D-1
IC3	G-3	RV101	E-2
IC4	C-5	RV102	C-2
IC5	D-3	RV202	C-1
IC6	F-5		
IC7	C-7	TP1	C-7
IC8	E-3	TP2	C-7
IC100	G-8	TP3	G-4
IC101	G-7	TP4	F-9
IC102	H-6	TP5	F-5
IC103	H-4	TP6	D-3
IC104	F-1	TP100	G-5
IC105	H-3	TP101	H-6
IC106	G-3	TP102	H-1
IC107	G-2	TP103	E-1
IC108	E-1	TP104	E-2
IC109	B-3	TP105	D-8
IC110	B-2	TP106	D-2
IC111	F-2	TP107	D-2
IC112	A-6		
IC113	A-5		
IC114	B-6		
IC115	B-5		
IC116	B-7		
IC117	C-8		
IC118	B-4		
IC119	A-4		
IC120	A-7		
IC201	F-8		
IC202	F-6		
IC203	G-5		

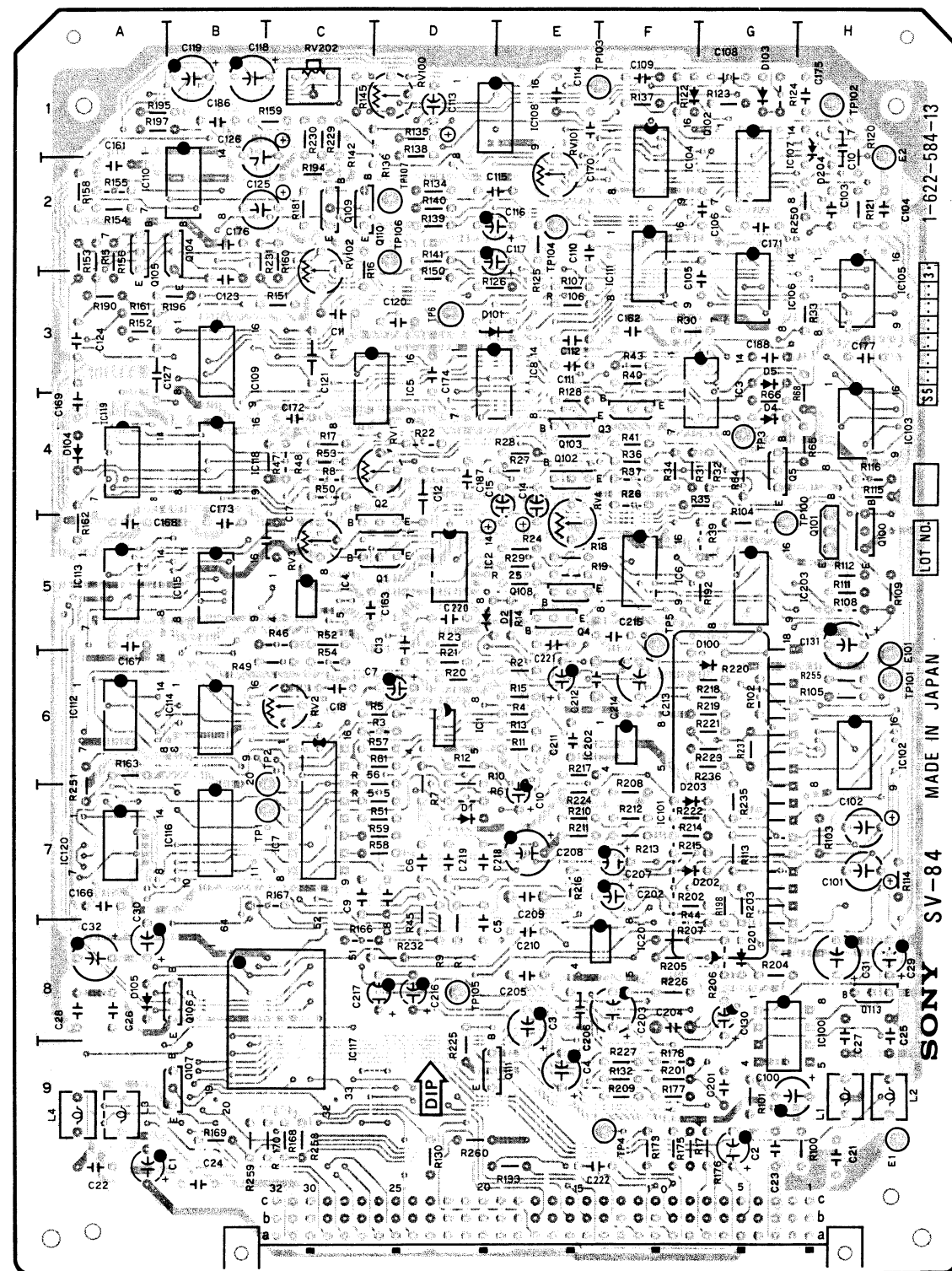


## SV-84P — COMPONENT SIDE —

1-622-584-13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

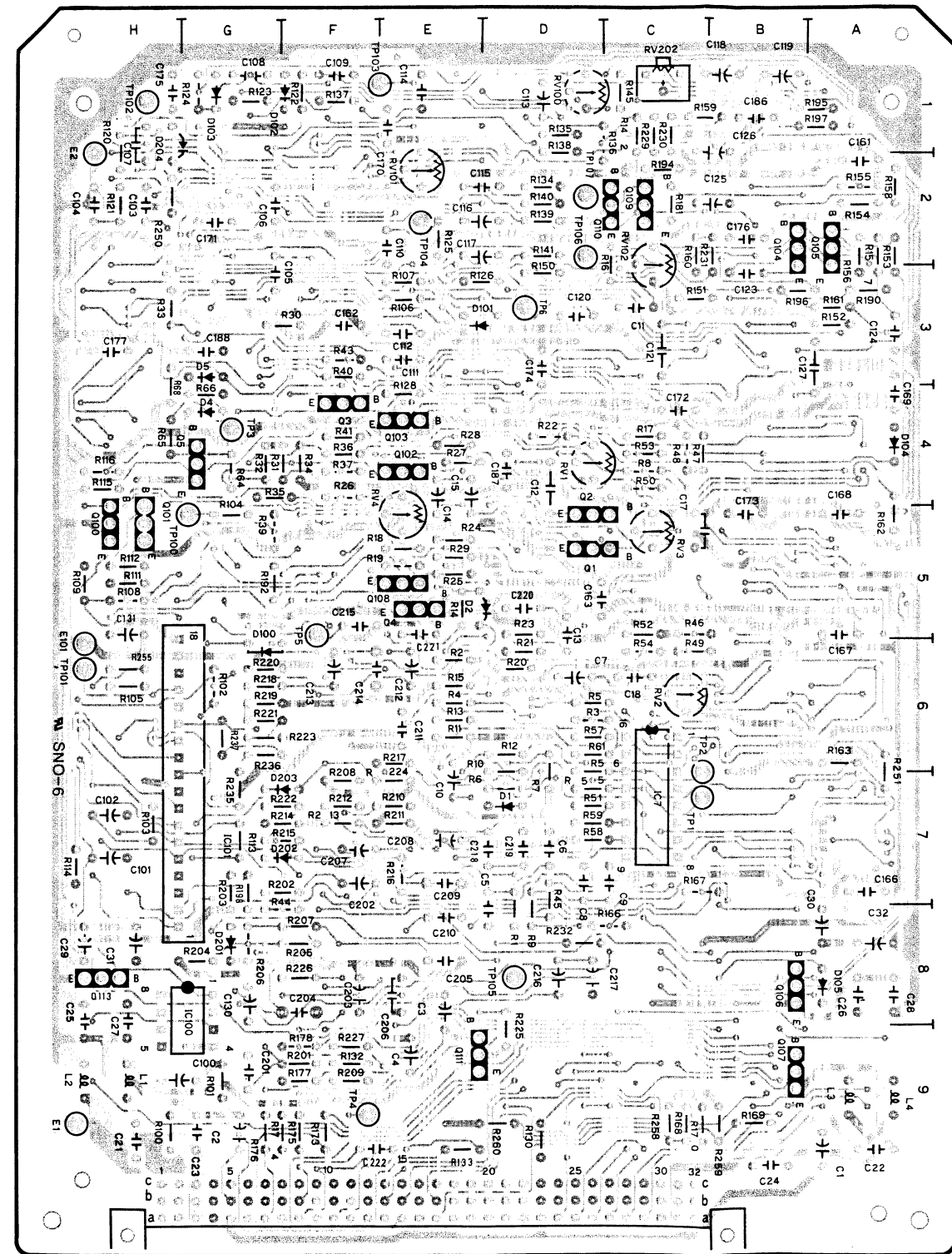


## SV-84P; CAPSTAN/DRUM SERVO



## SV-84P — COMPONENT SIDE —

1-622-584-13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



## SV-84P — SOLDERING SIDE —

1-622-584-13  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

RE-28 (1-622-559-11, 12)

REF. NO.	TYPE	PIN NO.	
		+12V	GND
IC 1	CX877	8	9

RE-28 (1-622-559-11, 12)

CN811 C-2  
CN812 C-2  
CN813 D-2  
CN814 B-2  
CN815 C-1  
CN816 D-1  
CN817 C-1  
CN818 D-1  
CN819 D-1  
CN820 D-1  
CN821 A-1  
CN822 A-2  
CN823 B-1  
CN824 A-2

D1 B-1  
E1 D-2  
IC1 B-1

Q1 D-2  
Q2 D-1  
Q3 D-2  
Q4 C-2  
Q5 B-2  
Q6 B-2

DR-56 (1-622-561-11, 12)

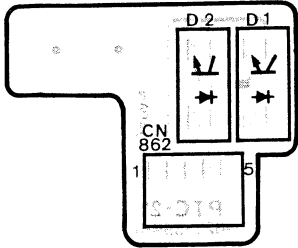
CN841 K-1  
CN842 F-1  
CN843 A-1

Q1 G-1  
Q2 G-1  
Q3 H-1  
Q4 H-1  
Q5 I-1  
Q6 J-1  
Q7 J-1  
Q8 E-1  
Q9 E-1  
Q10 D-1  
Q11 C-1  
Q12 B-1

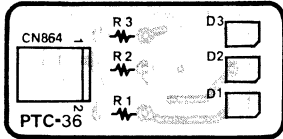
RE-28 ; DRUM/CAPSTAN MOTOR DRIVER  
PTC-20 ; CASSETTE DETECTOR  
PTC-21 ; REEL TABLE POSITION DETECTOR  
PTC-36 ; CASSETTE DETECTOR  
DR-56 ; DRUM ERROR AMPLIFIER, CAPSTAN/REEL MOTOR DRIVER



PTC-20 — COMPONENT SIDE —  
1-622-598-11  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P

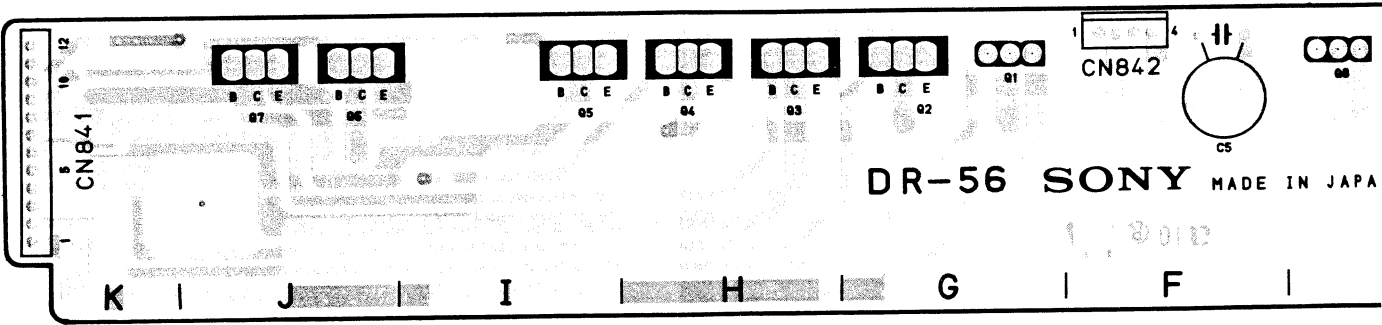


PTC-21 — COMPONENT SIDE —  
1-622-599-11  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P

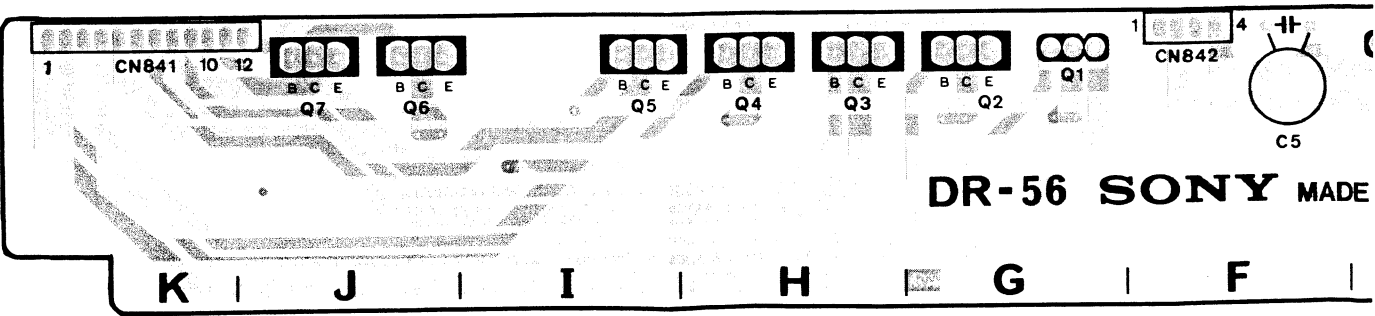


PTC-36 — COMPONENT SIDE —  
1-622-601-11  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P

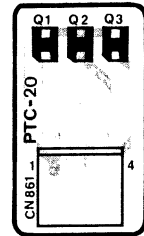
S/N 10061 through 10191



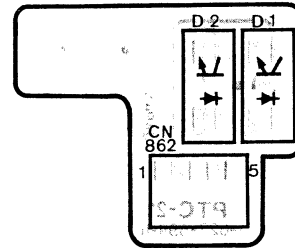
S/N 10192 and higher



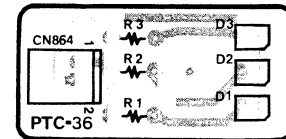
RE-28; DRUM/CAPSTAN MOTOR DRIVER  
 PTC-20; CASSETTE DETECTOR  
 PTC-21; REEL TABLE POSITION DETECTOR  
 PTC-36; CASSETTE DETECTOR  
 DR-56; DRUM ERROR AMPLIFIER, CAPSTAN/REEL MOTOR DRIVER



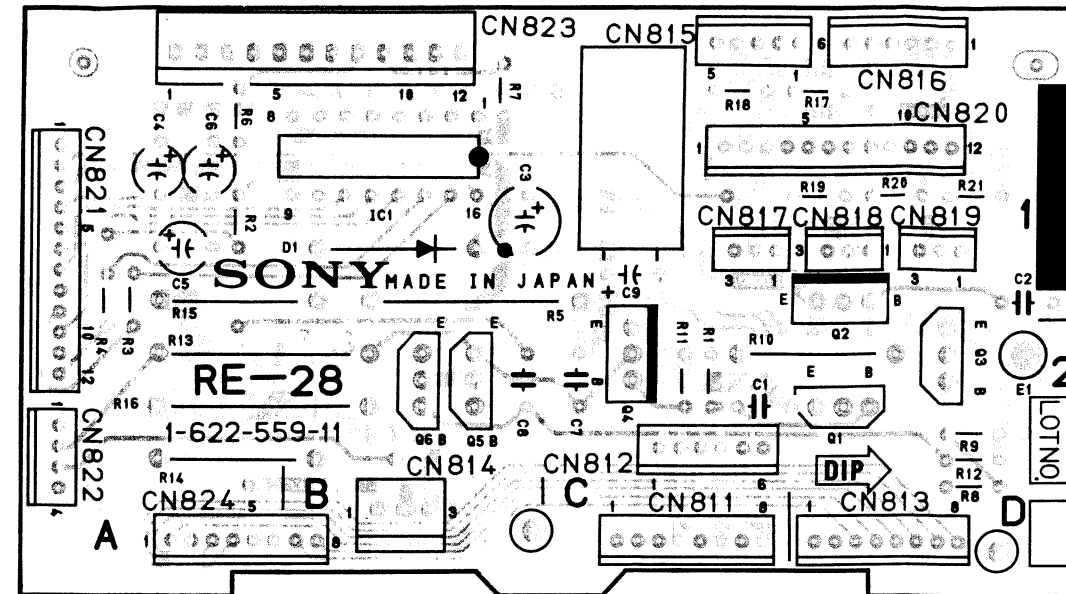
**PTC-20** — COMPONENT SIDE —  
 1-622-598-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P



**PTC-21** — COMPONENT SIDE —  
 1-622-599-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P

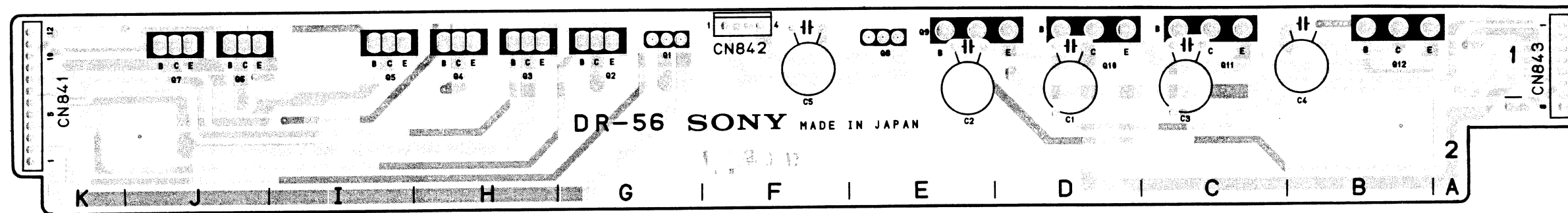


**PTC-36** — COMPONENT SIDE —  
 1-622-601-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P



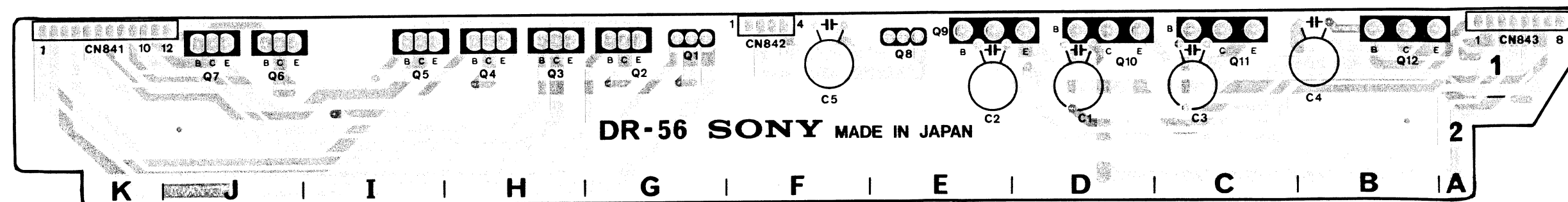
**RE-28** — COMPONENT SIDE —  
 1-622-559-11, 12  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P

S/N 10061 through 10191



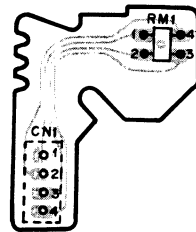
**DR-56** — SOLDERING SIDE —  
 1-622-561-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P

S/N 10192 and higher

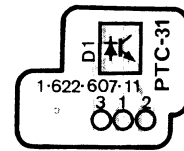


**DR-56** — SOLDERING SIDE —  
 1-622-561-12  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P

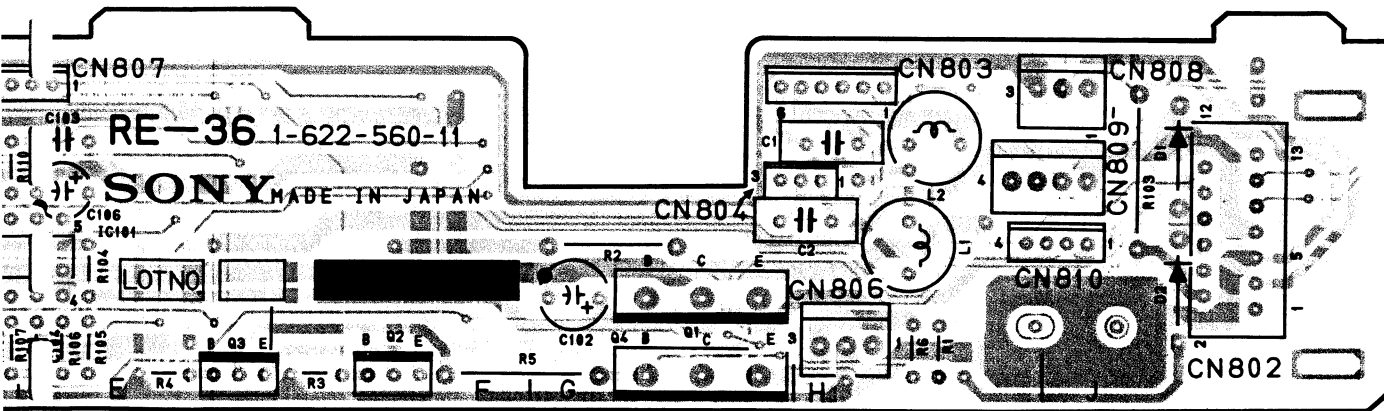




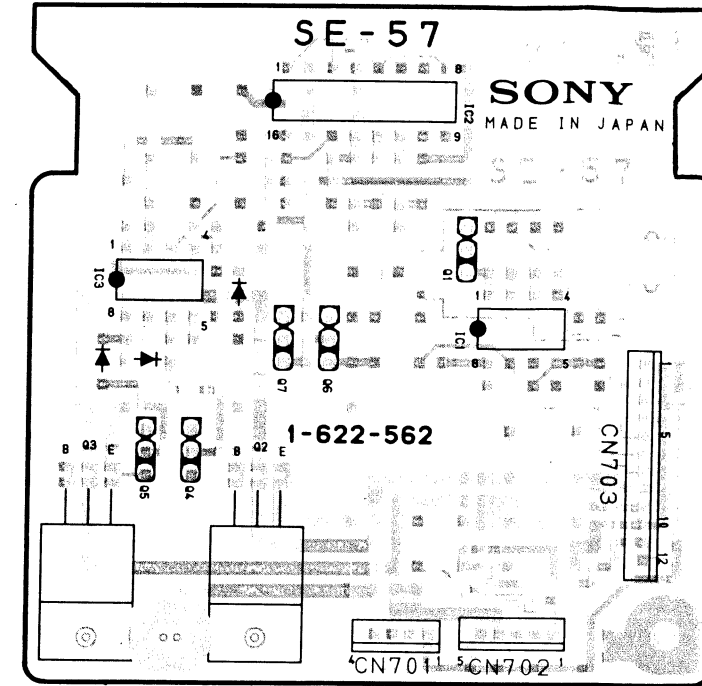
**TR-18** — SOLDERING SIDE —  
1-611-279-11  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P



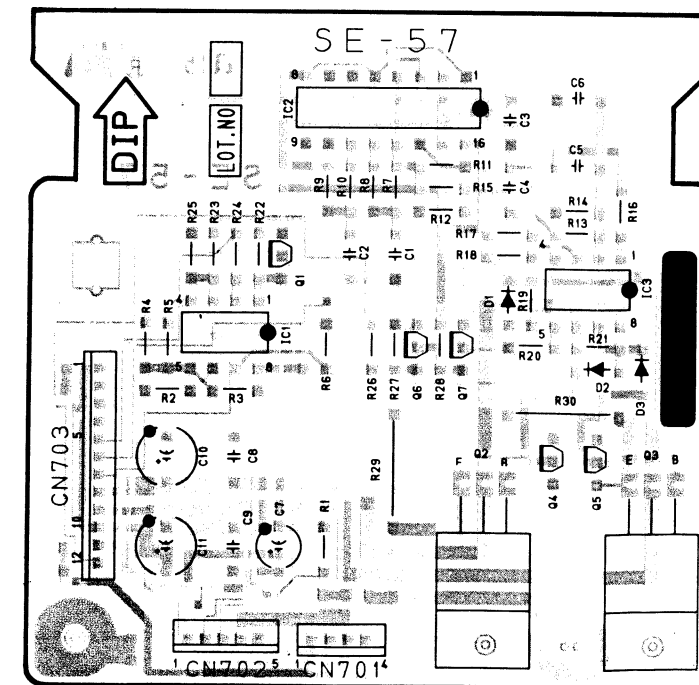
**PTC-31** — COMPONENT SIDE —  
1-622-607-11  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P



**RE-36** — COMPONENT SIDE —  
1-622-560-11  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P



**SE-57** — COMPONENT SIDE —  
1-622-562-12  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P



**SE-57** — SOLDERING SIDE —  
1-622-562-12  
BVW-60P BVW-75P  
BVW-65P  
BVW-70P



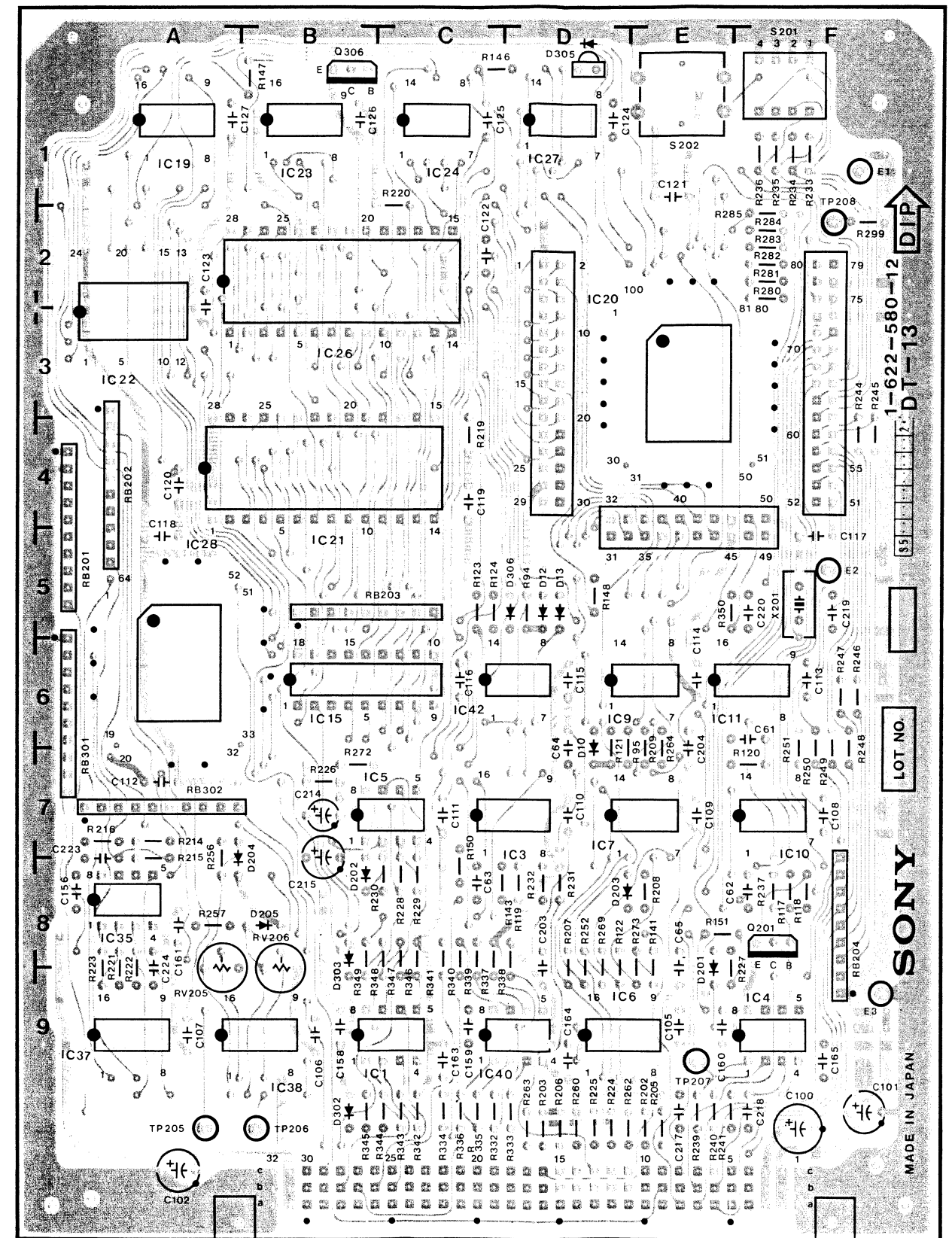
## DT-13; DYNAMIC TRACKING

DT-13 (1-622-580-12)

PRE. NO	TYPE	PIN NO.			
		+12V	+5V	GND	-12V
IC 1	$\mu$ PC4558C	8			4
IC 3	SN74HC368NS		14	7	
IC 4	$\mu$ PC4558C	8			4
IC 5	NJM2903D		8	4	
IC 6	TC4050BF		1	8	
IC 7	TC4030BF		14	7	
IC 9	TC4001BF		14	7	
IC 10	TC4081BF		14	7	
IC 11	TC4538BF		16	8	
IC 15	MSM5204ARS		18	3.10	
IC 19	TC40H163F		16	8	
IC 20	TMP284C011AF-6		11	29	
IC 21	MBM2764-25		28	14	
IC 22	CXK5816M-12L		24	12	
IC 23	TC40H139F		16	8	
IC 24	TC40H032F		14	7	
IC 26	TMP284C30AP-6		24	5	
IC 27	TC74HC74F		16	8	
IC 28	CXD1095Q		16	8	
IC 35	$\mu$ PC4558C	8			4
IC 37	TC4053BF		16	8	
IC 38	TC4053BF		16	8	
IC 40	$\mu$ PC4558C	8			4
IC 42	TC504013BF		14	7	

DT-13 (1-622-580-12)

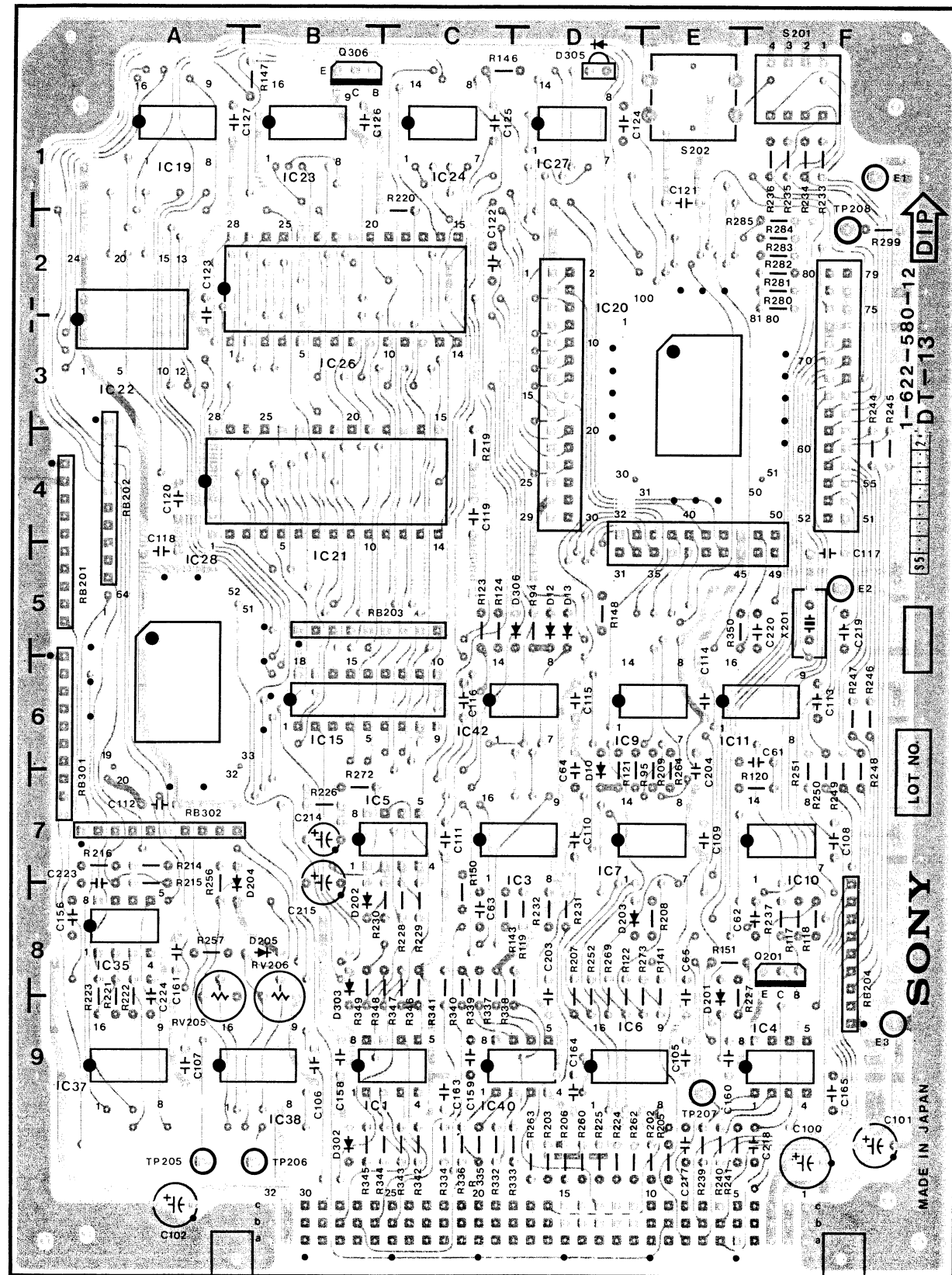
CN1	D-9
D10	D-6
D12	D-5
D13	D-5
D201	E-8
D202	B-8
D203	D-8
D204	B-7
D205	B-8
D302	B-9
D303	B-8
D305	D-1
D306	D-5
E1	F-1
E2	F-5
E3	F-9
IC1	C-9
IC3	D-7
IC4	F-9
IC5	C-7
IC6	D-9
IC7	E-7
IC9	E-6
IC10	F-7
IC11	F-6
IC15	B-6
IC19	A-1
IC20	E-3
IC21	B-4
IC22	A-3
IC23	B-1
IC24	C-1
IC26	B-2
IC27	D-1
IC28	A-6
IC35	A-8
IC37	A-9
IC38	B-9
IC40	D-9
IC42	D-6
Q201	F-8
Q306	B-1
RV205	A-9
RV206	B-9
S201	F-1
S202	E-1
TP205	A-9
TP206	B-9
TP207	E-9
TP208	F-2
X201	F-5



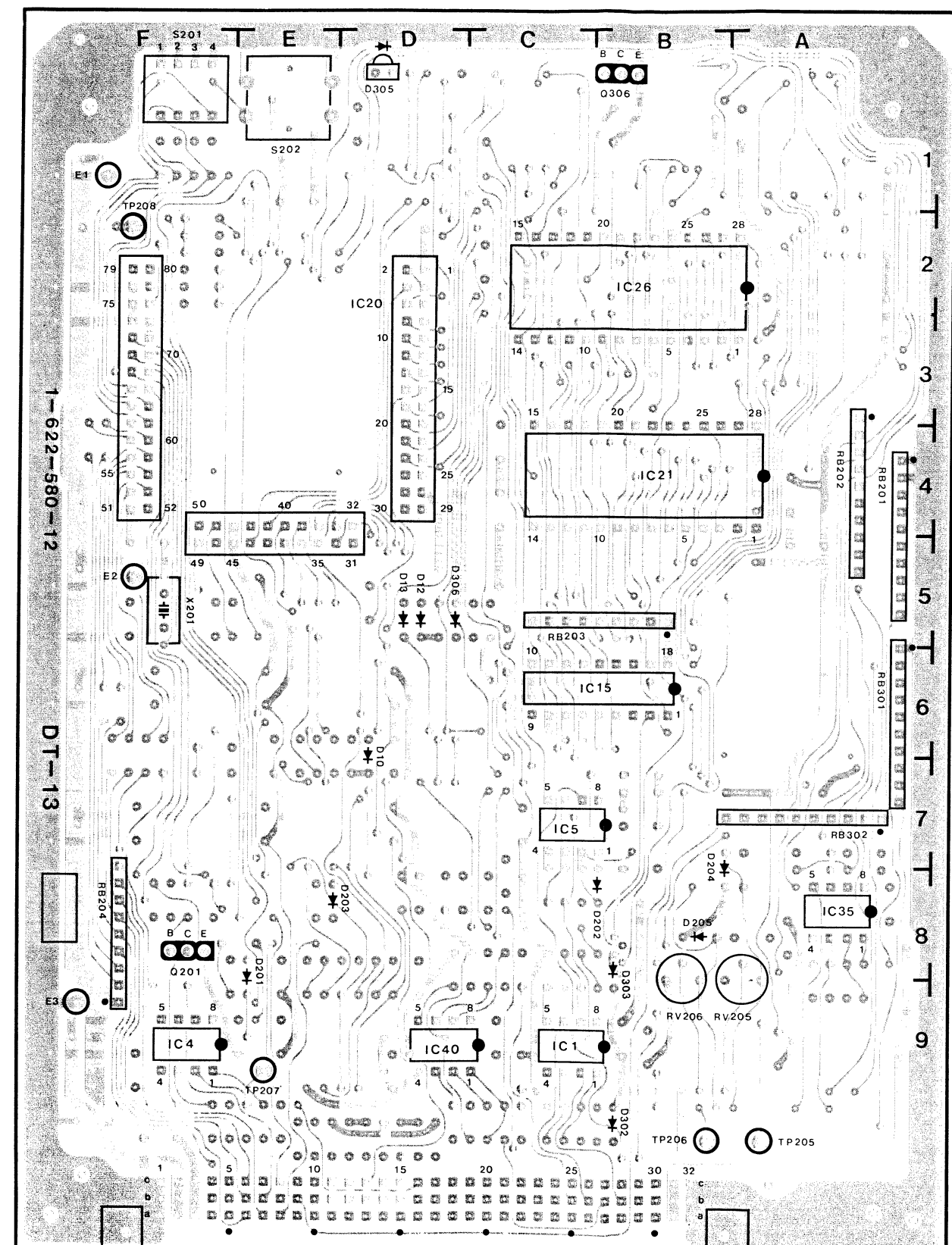
DT-13 — COMPONENT SIDE —

1-622-580-12  
 BVW-65P BVW-96P  
 BVW-75P  
 BVW-95P

## DT-13; DYNAMIC TRACKING



DT-13 — COMPONENT SIDE —  
 1-622-580-12  
 BVW-65P BVW-96P  
 BVW-75P  
 BVW-95P



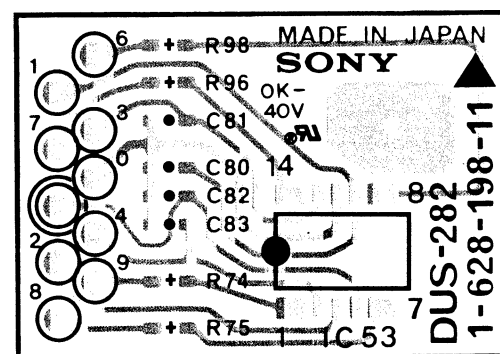
DT-13 — SOLDERING SIDE —  
 1-622-580-12  
 BVW-65P BVW-96P  
 BVW-75P  
 BVW-95P

DT-14P (1-622-581-11)

REF. No	TYPE	PIN NO.				
		+12V	+9V	+5V	GND	-12V
IC 1	HD14538BFP			16	8	
IC 2	TC504013BF			14	7	
IC 3	μPC4558C	8				4
IC 4	μPC4558C	8				4
IC 5	μPC4558C	8				4
IC 6	μPC4558C	8				4
IC 7	μPC4558C	8				4
IC 8	μPC4558C	8				4
IC 9	HD14538BFP			16	8	
IC 10	HD14538BFP			16	8	
IC 11	μPC4558C	8				4
IC 12	TC4023BF			14	7	
IC 13	TC4069UBF			14	7	
IC 14	TC4011BF			14	7	
IC 15	μPC4558C	8				4
IC 16	μPC4558C	8				4
IC 17	μPC4558C	8				4
IC 18	μPC4558C	8				4
IC 19	μPC4558C	8				4
IC 20	μPC4558C	8				4
IC 21	TC4053BF			16	8	
IC 22	TC4053BF			16	8	
IC 23	TC4053BF			16	8	
IC 43	TC504013BF			14	7	
IC 44	HD14538BFP			16	8	
IC 45	TC4030BF			14	7	
IC 46	HD14538BFP			16	8	
IC 47	TC504013BF			14	7	
IC 48	HD14538BFP			16	8	
IC 50	TC4053BF			16	8	
IC 51	TC4053BF			16	8	
IC 101	CX20061		1		5	
IC 102	AN608P	2			4	
IC 103	HA12411	11			4.14.16	
IC 104	BX3915A	10			2.8	
IC 105	NJM2903D	8				4
IC 106	HD14538BFP			16	8	

DT-15 (1-622-558-12)

REF. No	TYPE	PIN NO.	
		+12V	-12V
IC 7	NJM4558M	8	4
IC 8	NJM4558M	8	4
IC 9	NJM4558M	8	4
IC 10	NJM4558M	8	4



DUS-282 — COMPONENT SIDE —

1-628-198-11  
BVW-65P BVW-96P  
BVW-75P  
BVW-95P

DT-14P (1-622-581-11)

CN1	C-8	IC13	C-7	RV2	A-4
D1	C-6	IC14	C-8	RV3	B-5
D2	C-1	IC15	A-8	RV4	B-7
D3	C-8	IC16	B-8	RV5	B-8
D4	A-6	IC17	A-6	RV6	A-1
D5	B-1	IC18	A-5	RV7	A-1
D6	A-5	IC19	A-4	RV203	C-5
D7	A-2	IC20	A-3	RV304	C-4
D8	A-5	IC21	A-7	RV305	D-5
D9	A-2	IC22	B-7		
D14	B-6	IC23	B-1	S1	A-1
D15	B-1	IC43	D-8		
D16	B-7	IC44	C-5	TP1	C-8
D17	A-7	IC45	C-6	TP2	A-6
D301	E-3	IC46	D-6	TP3	B-2
D304	C-6	IC47	D-5	TP4	A-3
		IC48	D-2	TP5	B-5
		IC50	C-4	TP6	A-6
E1	E-8	IC51	D-8	TP7	A-8
E2	E-2	IC101	E-8	TP10	C-1
E3	A-1	IC102	E-8	TP11	D-7
E4	A-8	IC103	E-7	TP202	D-8
		IC104	E-5	TP203	D-7
		IC105	E-2	TP301	E-6
IC1	C-3	IC106	D-6	TP302	E-5
IC2	C-2			TP303	E-4
IC3	D-1	Q1	D-1	TP304	E-4
IC4	C-1	Q2	C-1	TP305	D-3
IC5	B-2	Q301	E-6	TP306	D-3
IC6	A-2	Q302	E-6	TP307	D-4
IC7	B-4	Q303	E-5		
IC8	B-5	Q304	E-3		
IC9	D-2	Q305	D-4		
IC10	E-1				
IC11	B-3				
IC12	B-6	Q501	B-4		

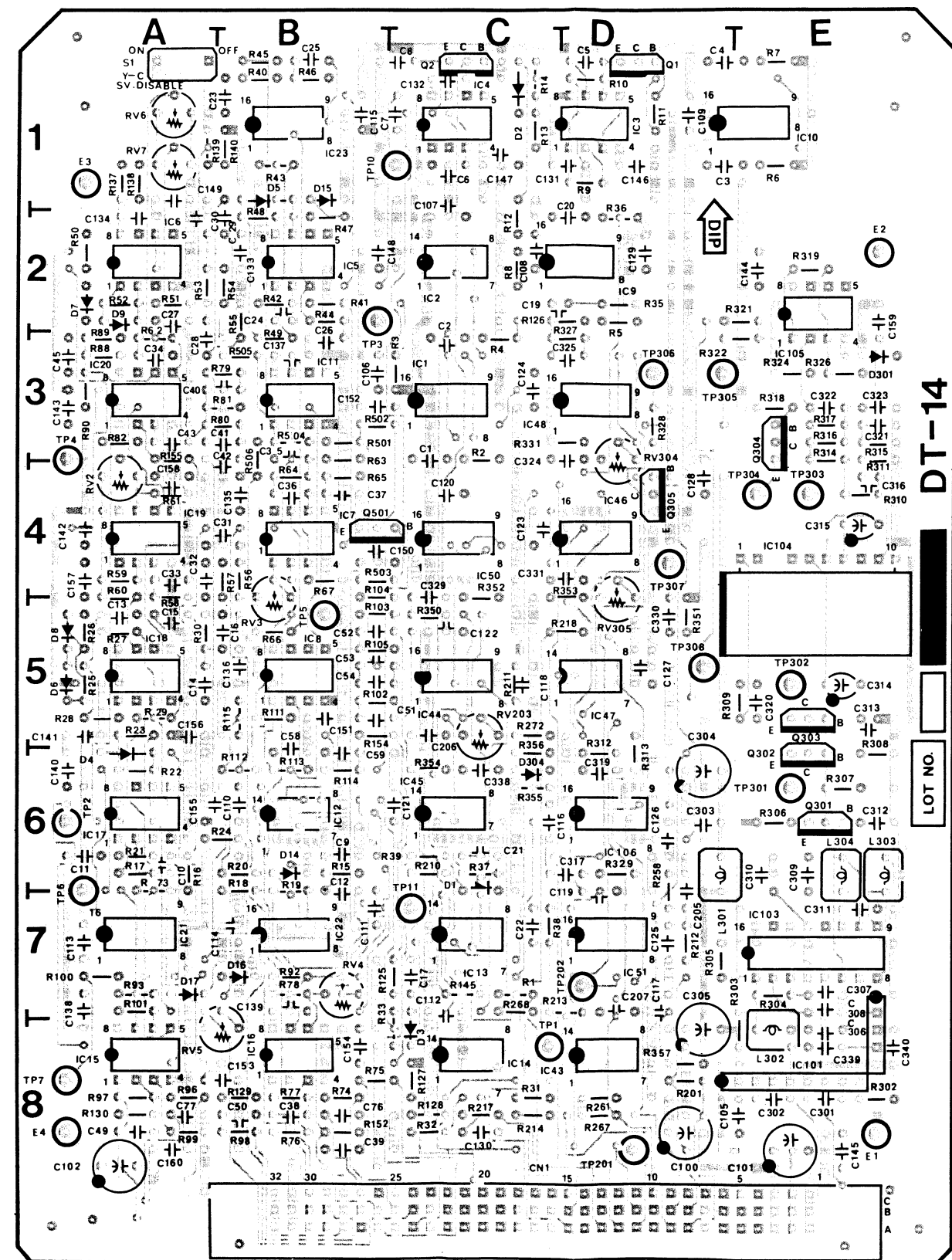
DT-15 (1-622-558-12)

CN611	D-1	IC7	D-1	RV2	A-2
CN612	D-2	IC8	D-2		
		IC9	D-2	T1	A-1
		IC10	D-2		
D1	A-1	Q1	A-1	TP8	A-1
D2	A-2	Q2	A-1	TP10	A-1
D3	A-2	Q6	D-1		
D4	B-2	Q7	D-1		
D5	B-2	Q8	D-1		
D7	D-1	Q9	C-1		
D8	D-1	Q10	C-1		
D9	D-2	Q11	C-1		
D11	A-2	Q12	D-2		
D12	D-1	Q13	D-2		
D15	D-2	Q14	D-2		
E1	A-1	Q15	C-2		
F1	B-1	Q16	C-2		
		Q17	C-2		

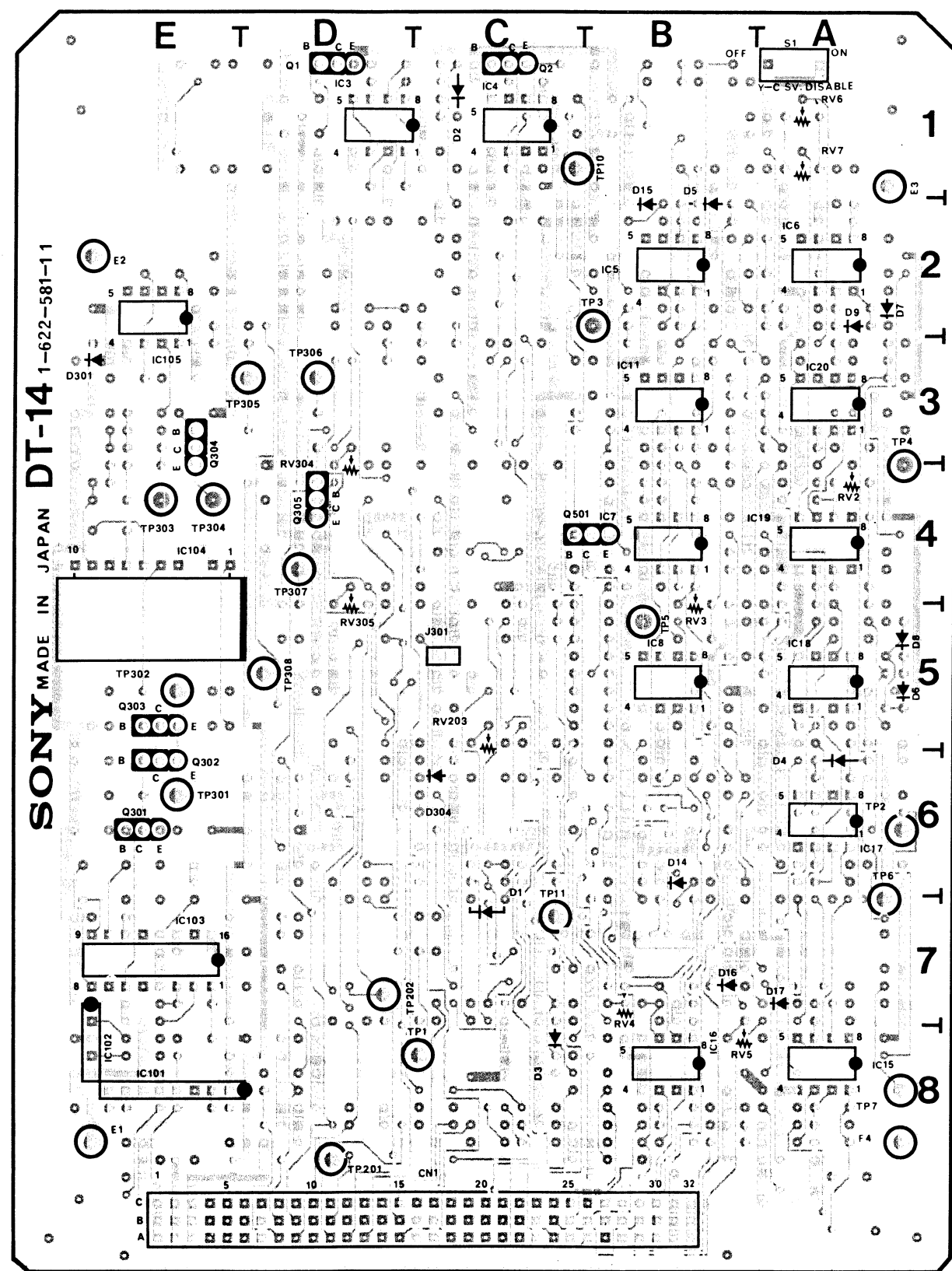
S/N 10161 and higher

DT-14P; DYNAMIC TRACKING  
DUS-282; STRAIN GAGE BUFFER  
DT-15; DYNAMIC TRACKING

Up to S/N 11676

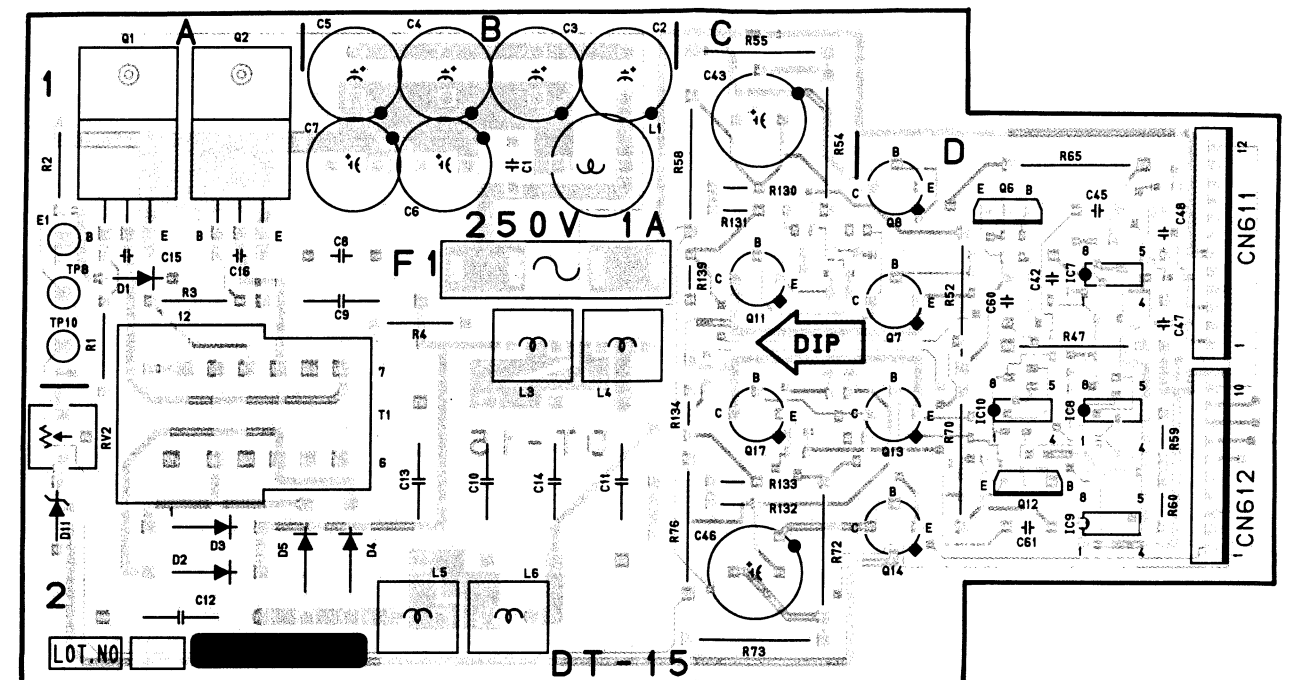




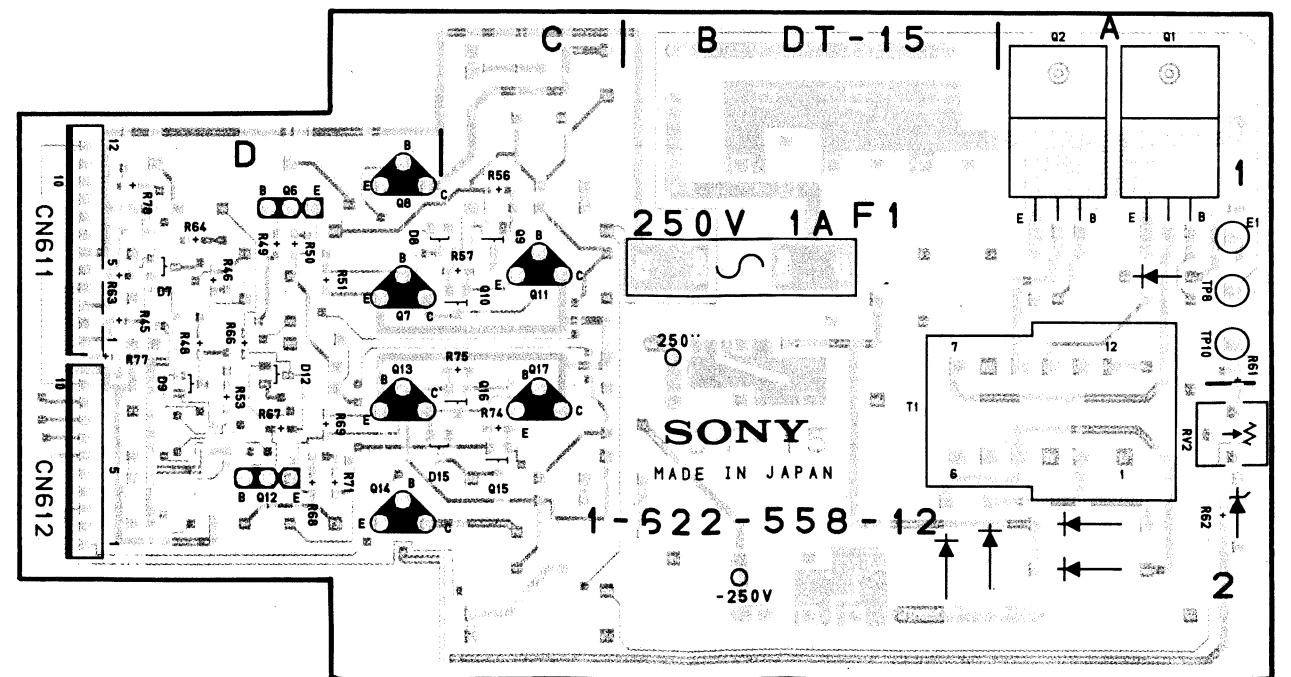


**DT-14P** — SOLDERING SIDE —  
1-622-581-11  
BVW-65P BVW-96P  
BVW-75P  
BVW-95P

17-139 (a)



**DT-15** — COMPONENT SIDE —  
1-622-558-12  
BVW-65P BVW-96P  
BVW-75P  
BVW-95P



**DT-15** — SOLDERING SIDE —  
1-622-558-12  
BVW-65P BVW-96P  
BVW-75P  
BVW-95P

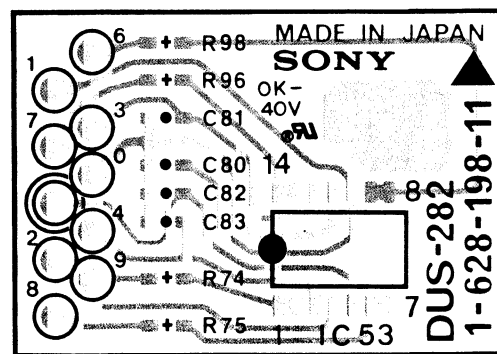
17-140 (a)

DT-14P (1-622-581-11)

REF. No	TYPE	PIN NO.				
		+12V	+9V	+5V	GND	-12V
IC 1	HD14538BFP			16	8	
IC 2	TC504013BF			14	7	
IC 3	$\mu$ PC4558C	8				4
IC 4	$\mu$ PC4558C	8				4
IC 5	$\mu$ PC4558C	8				4
IC 6	$\mu$ PC4558C	8				4
IC 7	$\mu$ PC4558C	8				4
IC 8	$\mu$ PC4558C	8				4
IC 9	HD14538BFP			16	8	
IC 10	HD14538BFP			16	8	
IC 11	$\mu$ PC4558C	8				4
IC 12	TC4023BF			14	7	
IC 13	TC4069UBF			14	7	
IC 14	TC4011BF			14	7	
IC 15	$\mu$ PC4558C	8				4
IC 16	$\mu$ PC4558C	8				4
IC 17	$\mu$ PC4558C	8				4
IC 18	$\mu$ PC4558C	8				4
IC 19	$\mu$ PC4558C	8				4
IC 20	$\mu$ PC4558C	8				4
IC 21	TC4053BF			16	8	
IC 22	TC4053BF			16	8	
IC 23	TC4053BF			16	8	
IC 43	TC504013BF			14	7	
IC 44	HD14538BFP			16	8	
IC 45	TC4030BF			14	7	
IC 46	HD14538BFP			16	8	
IC 47	TC504013BF			14	7	
IC 48	HD14538BFP			16	8	
IC 50	TC4053BF			16	8	
IC 51	TC4053BF			16	8	
IC 101	CX20061		1		5	
IC 102	AN608P	2			4	
IC 103	HA12411	11			4.14.16	
IC 104	BX3915A	10			2.8	
IC 105	NJM2903D	8				4
IC 106	HD14538BFP			16	8	

DT-15 (1-622-558-13, 14)

REF. No	TYPE	PIN NO.	
		+ 12V	- 12V
IC 7	NJM4558M	8	4
IC 8	NJM4558M	8	4
IC 9	NJM4558M	8	4
IC 10	NJM4558M	8	4



**DUS-282** — COMPONENT SIDE —

1-628-198-11  
BVW-65P BVW-96P  
BVW-75P  
BVW-95P

DT-14P (1-622-581-11)

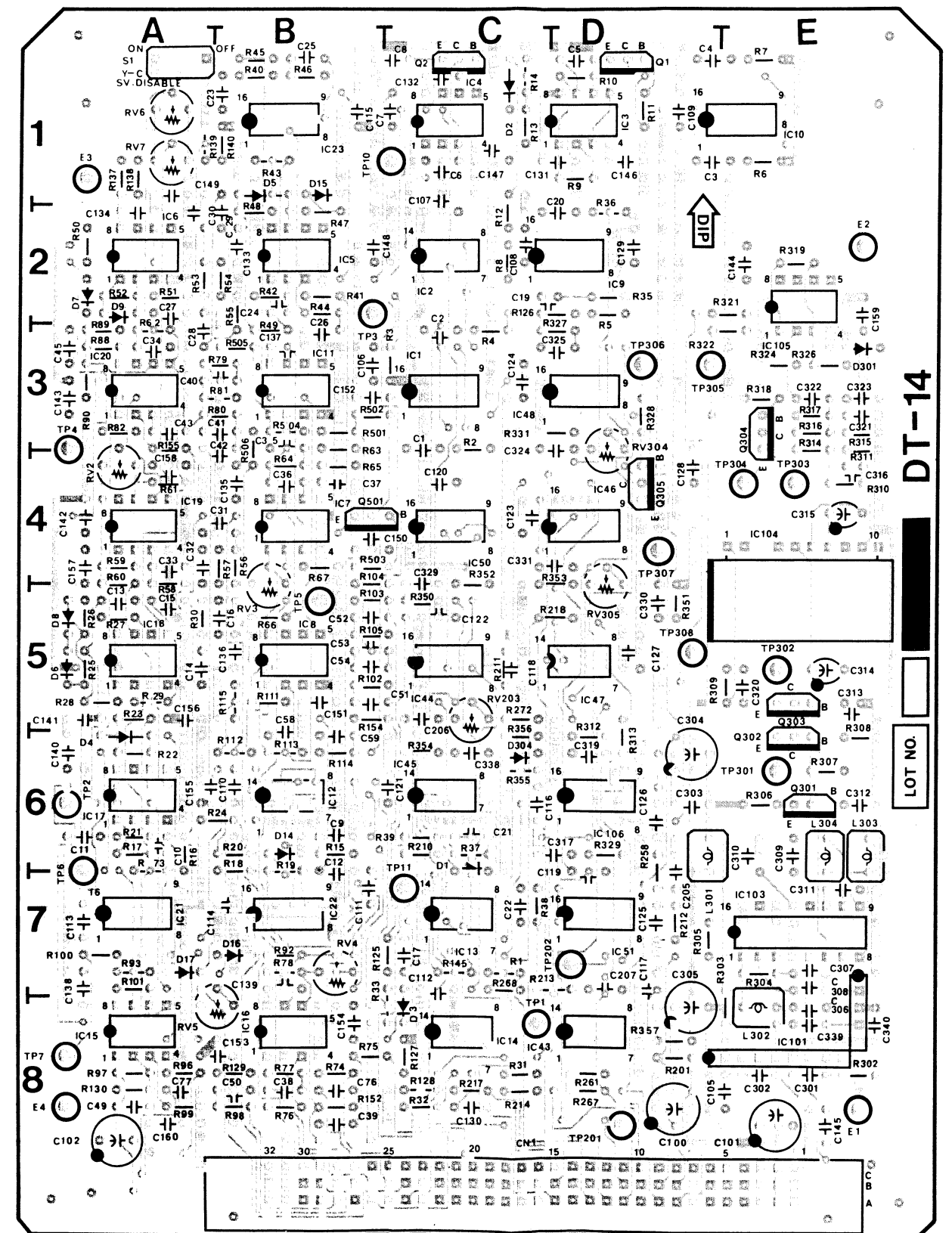
CN1	C-8	IC13	C-7	RV2	A-4
		IC14	C-8	RV3	B-5
D1	C-6	IC15	A-8	RV4	B-7
D2	C-1	IC16	B-8	RV5	B-8
D3	C-8	IC17	A-6	RV6	A-1
D4	A-6	IC18	A-5	RV7	A-1
D5	B-1	IC19	A-4	RV203	C-5
D6	A-5	IC20	A-3	RV304	C-4
D7	A-2	IC21	A-7	RV305	D-5
D8	A-5	IC22	B-7		
D9	A-2	IC23	B-1	S1	A-1
D14	B-6	IC43	D-8		
D15	B-1	IC44	C-5	TP1	C-8
D16	B-7	IC45	C-6	TP2	A-6
D17	A-7	IC46	D-6	TP3	B-2
D301	E-3	IC47	D-5	TP4	A-3
D304	C-6	IC48	D-2	TP5	B-5
		IC50	C-4	TP6	A-6
E1	E-8	IC51	D-8	TP7	A-8
E2	E-2	IC101	E-8	TP10	C-1
E3	A-1	IC102	E-8	TP11	D-7
E4	A-8	IC103	E-7	TP201	D-8
		IC104	E-5	TP202	D-7
IC1	C-3	IC105	E-2	TP301	E-6
IC2	C-2	IC106	D-6	TP302	E-5
IC3	D-1			TP303	E-4
IC4	C-1	Q1	D-1	TP304	E-4
IC5	B-2	Q2	C-1	TP305	D-3
IC6	A-2	Q301	E-6	TP306	D-3
IC7	B-4	Q302	E-6	TP307	D-4
IC8	B-5	Q303	E-5	TP308	D-5
IC9	D-2	Q304	E-3		
IC10	E-1	Q305	D-4		
IC11	B-3	Q501	B-4		
IC12	B-6				

DT-15(1-622-558-13, 14)

CN611	D-1	IC7	D-1	RV2	A-2
CN612	D-2	IC8	D-2		
		IC9	D-2	T1	A-1
D1	A-1	IC10	D-2		
D2	A-2			TP8	A-1
D3	A-2	Q1	A-1	TP10	A-1
D4	B-2	Q2	A-1		
D5	B-2	Q6	D-1		
D7	D-1	Q7	D-1		
D8	D-1	Q8	D-1		
D9	D-2	Q9	C-1		
D11	A-2	Q10	C-1		
D12	D-1	Q11	C-1		
D15	D-2	Q12	D-2		
		Q13	D-2		
E1	A-1	Q14	D-2		
		Q15	C-2		
F1	B-1	Q16	C-2		
		Q17	C-2		

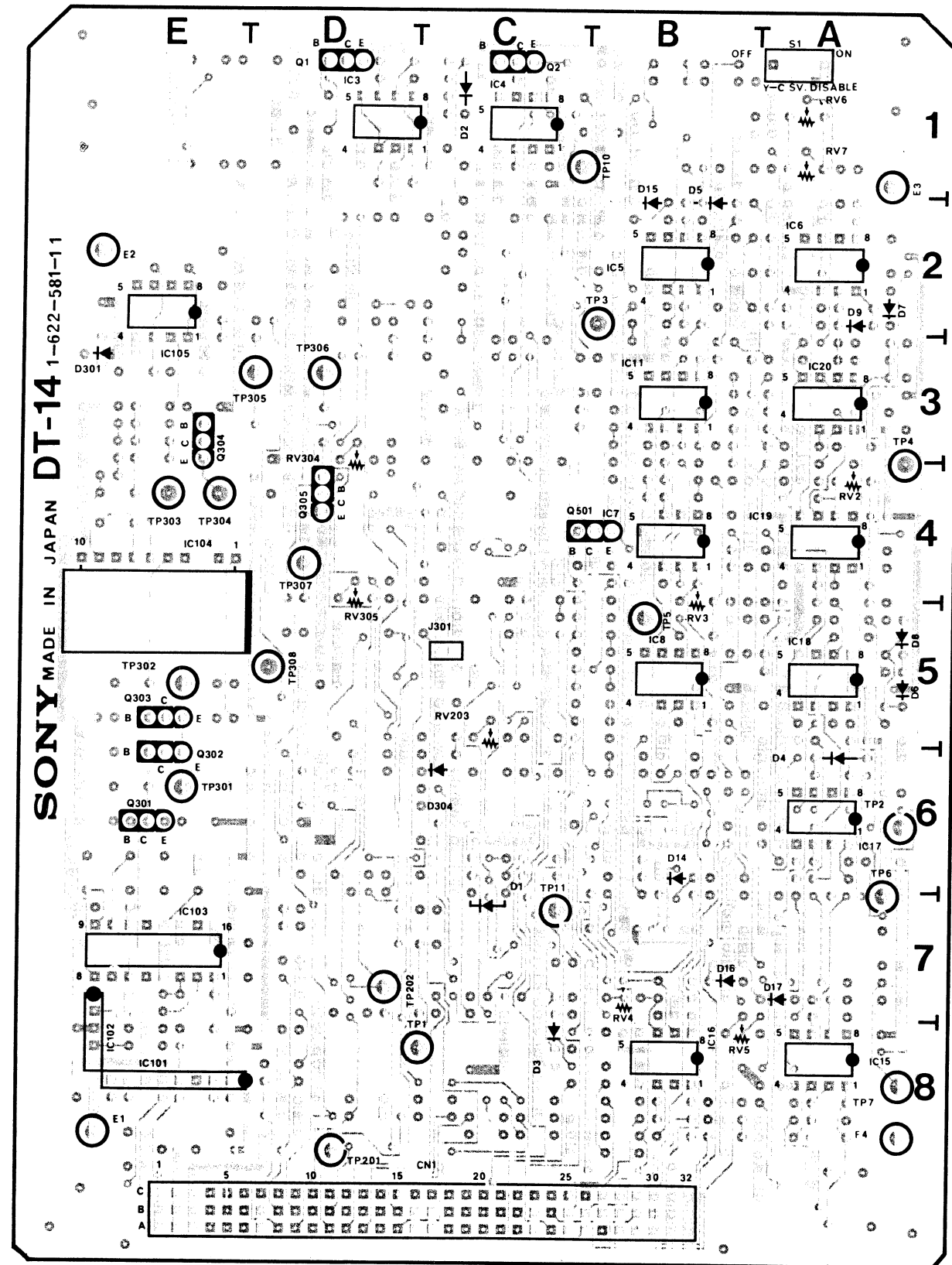
DT-14P; DYNAMIC TRACKING  
DUS-282; STRAIN GAGE BUFFER  
DT-15; DYNAMIC TRACKING

S/N 11677 and higher



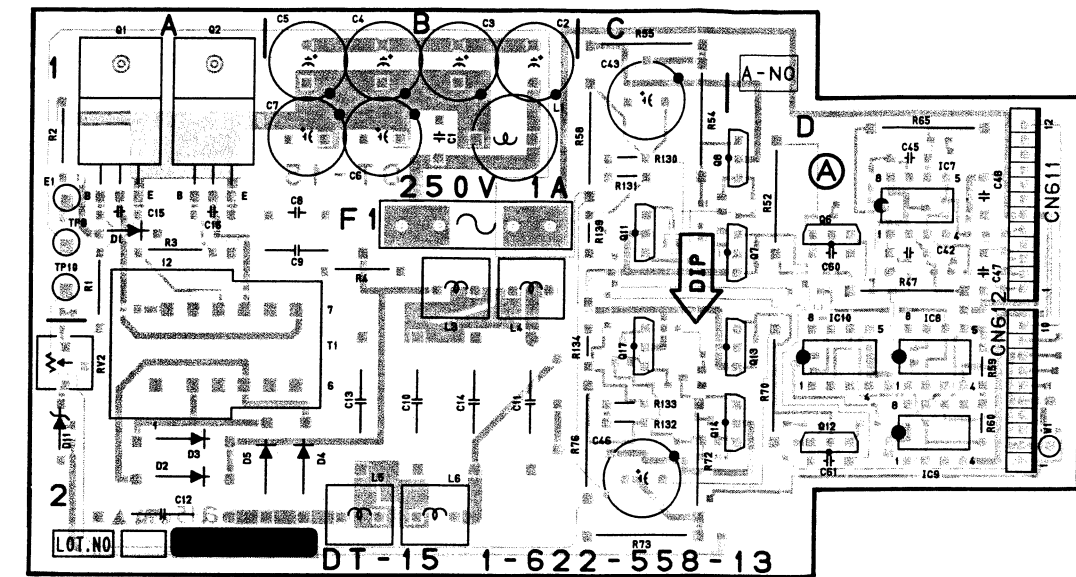
DT-14P — COMPONENT SIDE —

1-622-581-11  
BVW-65P BVW-96P  
BVW-75P  
BVW-95P

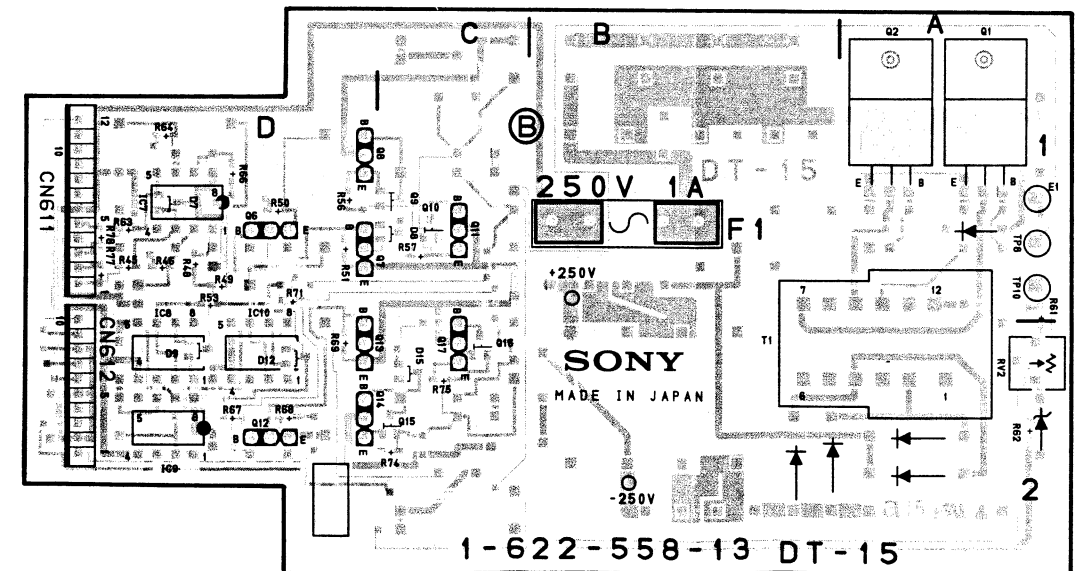


**DT-14P** — SOLDERING SIDE —  
 1-622-581-11  
 BVW-65P BVW-96P  
 BVW-75P  
 BVW-95P

17-139 (b)



**DT-15 — COMPONENT SIDE —**  
 1-622-558-13, 14  
 BVW-65P BVW-96P  
 BVW-75P  
 BVW-95P



**DT-15 — SOLDERING SIDE —**  
 1-622-558-13, 14  
 BVW-65P BVW-96P  
 BVW-75P  
 BVW-95P

17-140 (b)

SY-61/61A/61B/61C;  
SYSTEM CONTROL

SY-61/61A/61B/61C (1-622-577-14)

REF.NO.	TYPE	PIN NO.	
		+5V	GND
IC 1	SN74LS244N	20	10
IC 2	SN74LS245N	20	10
IC 3	SN74LS244N	20	10
IC 4	MBM2212-25P	18	8
IC 5	CKX5816PN-12L	24	12
IC 6	MBM27C256-25	28	14
IC 7	TMPZ84C011AF	27.51.90	28.50.77.100
IC 8	TC74HC04P	14	7
IC 9	M54529AP	1.14	7
IC 10	TC74HC11P	14	7
IC 11	TC74HC138P	16	8
IC 12	TC74HC138P	16	8
IC 13	TC74HC14P	14	7
IC 14	TC4050BP	1	8
IC 15	TC4053BPHB	16	7.8
IC 16	TC74HC595P	16	8
IC 17	TC74HC597P	16	8
IC 18	NJM78L05A	*	3
IC 19	MB88303	22	11
IC 20	AM26LS30PC	1	4.5.8
IC 21	TC74HC157P	16	8
IC 22	TC74HC157P	16	8
IC 23	CKX5816PN-12L	24	12
IC 24	TC74HC04P	14	7
IC 25	NJM2903D	8	4
IC 26	MC34051P	16	8
IC 27	TMPZ84C011AF	27.51.90	28.50.77.100
IC 28	TC74HC245P	20	10
IC 29	TC74HC245P	20	10
IC 30	LH0082AD	24	5
IC 31	M54529AP	1.14	7
IC 32	M54529AP	1.14	7
IC 33	TC4030BP	14	7
IC 34	TC74HC08P	14	7
IC 35	SN74LS697N	20	10
IC 36	SN74LS697N	20	10
IC 37	M54529AP	1.14	7
IC 38	CXD1095Q	26.58	10.25.42.57
IC 39	MBM27C512-25	28	14
IC 40	CKX5864PN-12L	28	14
IC 41	LH0084A	9	31
IC 42	TC74HC32P	14	7
IC 43	TC74HC32P	14	7
IC 44	TC74HC00P	14	7
IC 45	M51958BL	1	3
IC 46	TC74HC08P	14	7
IC 47	MC14538BCP	16	8
IC 48	μPD4069UBP	14	7
IC 49	MC74HC58N	14	7
IC 50	TC74HC32P	14	7
IC 51	TC74HC04P	14	7
IC 52	TC74HC139P	14	7
IC 53	TC74HC02P	14	7

\* REFER TO SCHEMATIC

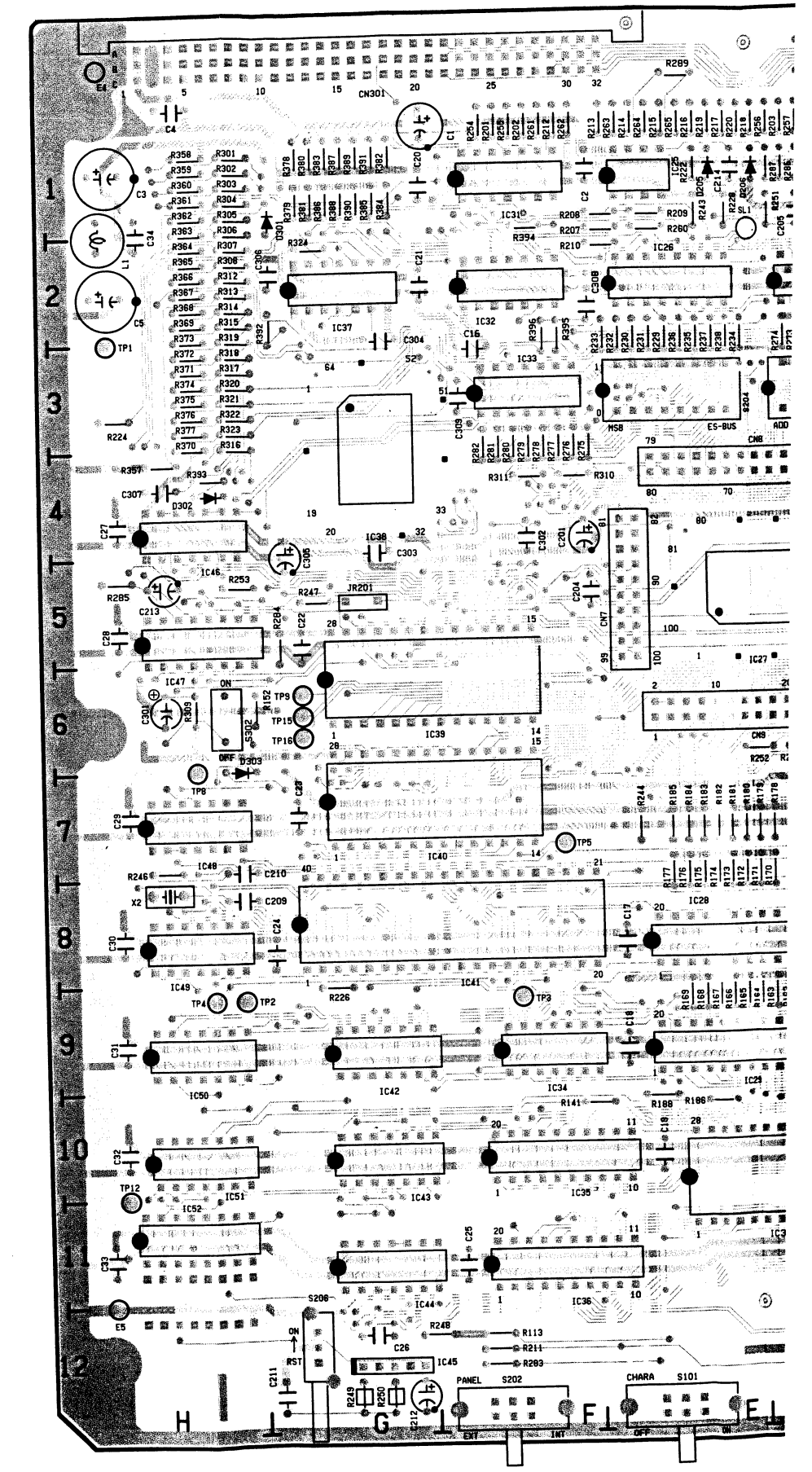
SY-61/61A/61B/61C (1-622-577-14)

CN3	C-10	IC28	E-8
CN4	B-9	IC29	E-9
CN5	B-2	IC30	D-10
CN6	A-10	IC31	F-1
CN7	E-5	IC32	F-2
CN8	D-4	IC33	F-3
CN9	D-6	IC34	F-9
CN10	D-5	IC35	F-10
CN301	G-1	IC36	F-11
CN302	B-1	IC37	G-2
		IC38	G-4
CV101	C-7	IC39	F-6
CV102	C-7	IC40	F-7
		IC41	F-8
		IC42	G-9
D101	C-12	IC43	G-10
D102	D-6	IC44	G-11
D103	D-6	IC45	G-12
D201	C-1	IC46	H-4
D202	C-1	IC47	H-5
D203	D-1	IC48	H-7
D204	D-1	IC49	H-8
D205	E-1	IC50	H-9
D206	E-1	IC51	H-10
D301	G-1	IC52	H-11
D302	H-4	IC53	C-3
E1	A-1	S101	E-12
E2	A-12	S102	C-12
E3	D-7	S103	B-12
E4	H-1	S105	B-12
E5	H-12	S106	A-11
IC1	A-1	S201	D-12
IC2	A-2	S202	F-12
IC3	A-3	S203	D-3
IC4	A-4	S204	E-3
IC5	A-5	S206	G-12
IC6	A-7	S302	H-6
IC7	B-3		
IC8	B-1	TP1	H-2
IC9	B-2	TP2	H-9
IC10	B-3	TP3	F-9
IC11	B-4	TP4	H-9
IC12	B-5	TP5	F-7
IC13	C-1	TP8	H-7
IC14	C-2	TP9	G-6
IC15	B-8	TP10	D-11
IC16	C-4	TP11	D-11
IC17	C-5	TP12	H-10
IC18	C-6	TP13	C-11
IC19	C-7	TP14	C-11
IC20	D-2	TP15	G-6
IC21	D-7	TP16	G-6
IC22	D-8	TP17	A-12
IC23	D-8	TP18	C-12
IC24	C-11		
IC25	E-1	X1	D-12
IC26	E-2	X2	H-8
IC27	D-5		

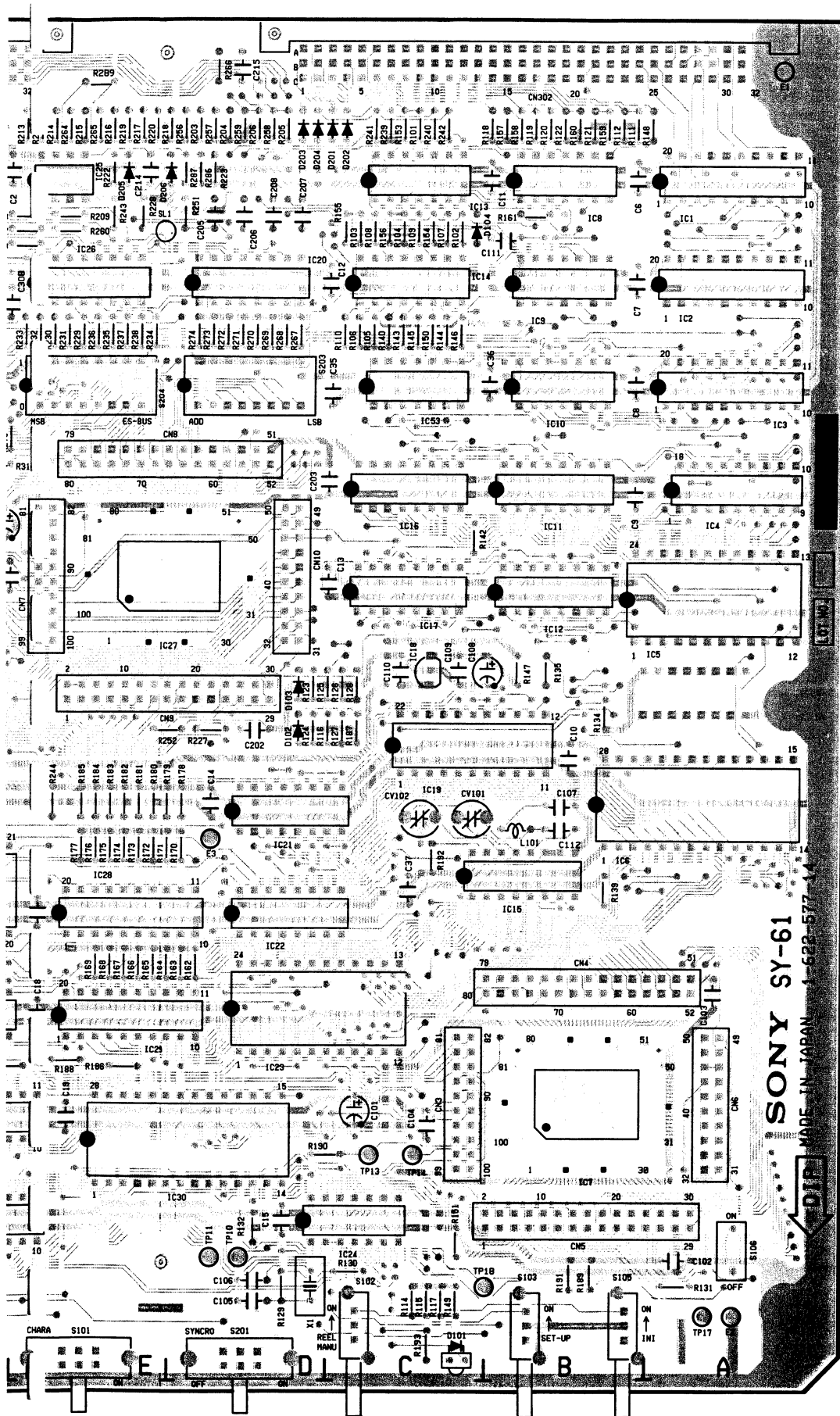
NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC15 TC4053BP → TC4053BPHB IC39 MBM27C256-25 → MBM27C512-25	S/N 10575 ~

	SY-61	SY-61A	SY-61B	SY-61C
BVW-60P		○		
BVW-65P		○		
BVW-70P	○			
BVW-75P	○			
BVW-95P			○	
BVW-96P				○



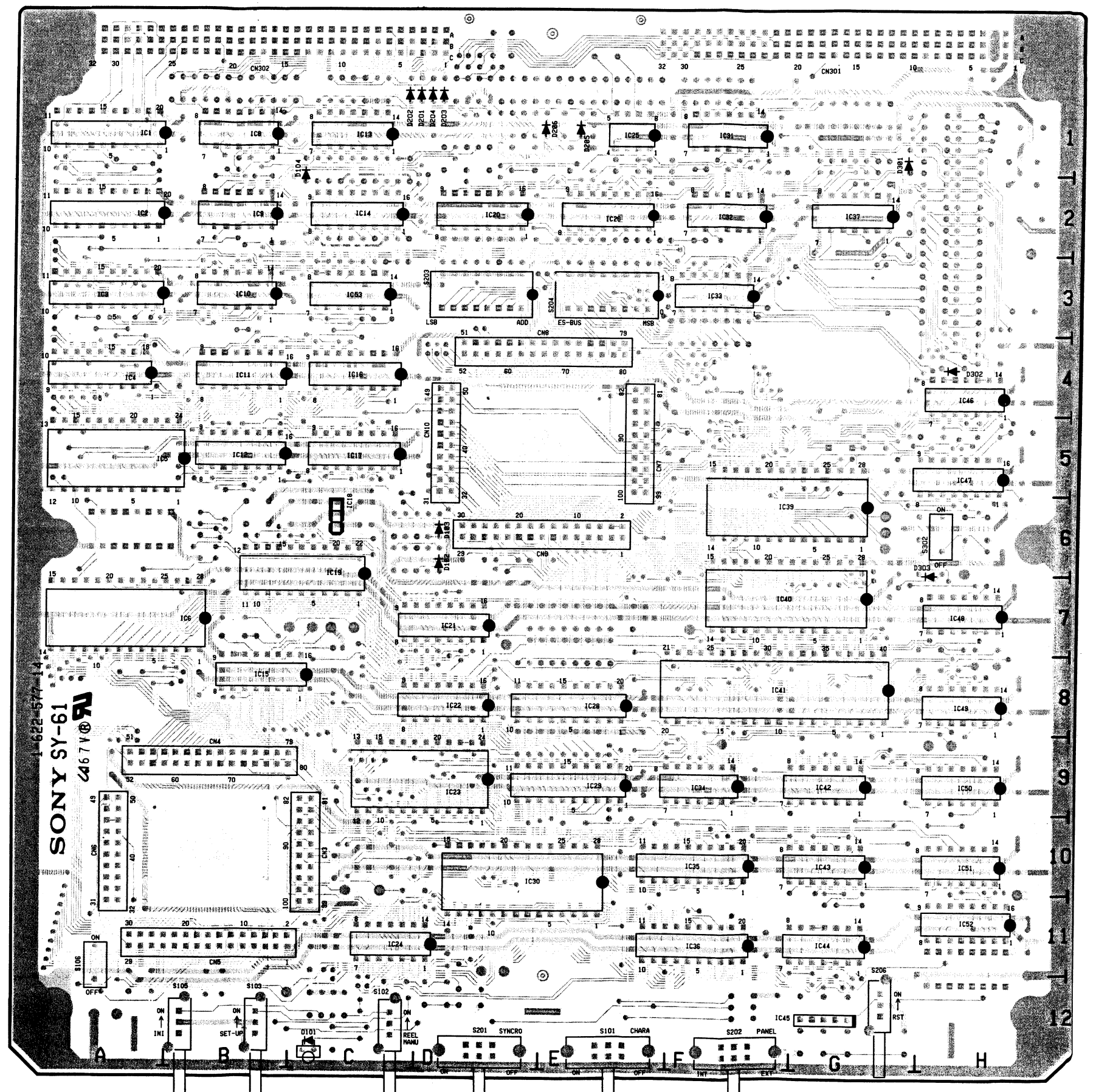




SY-61/61A/61B/61C — COMPONENT SIDE —

1-622-577-14  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

17-147



SY-61/61A/61B/61C — SOLDERING SIDE —

1-622-577-14  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

17-148



SY-64AP; SYSTEM CONTROL, TIME CODE READER,  
TIME BASE IMPACT ERROR CORRECTOR

SY-64AP (1-622-578-21)

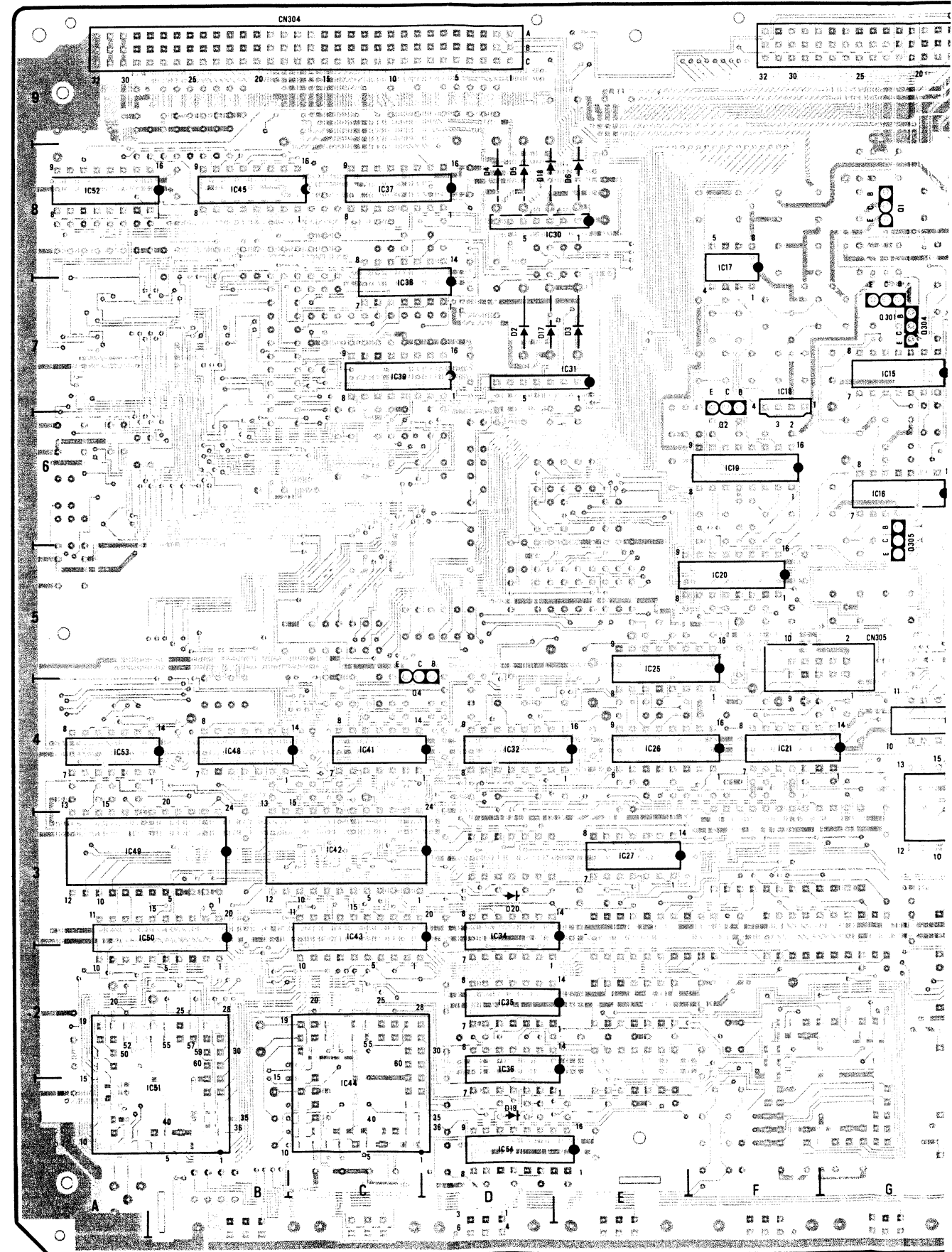
REF. No.	TYPE	PIN NO.						
		UNREG +15V	UNREG +14V	+12V	+5V	GND	UNREG GND	-12V
IC 1	BX-343			13	8	7		
IC 2	LA7205				8	5		
IC 3	LA7205				8	5		
IC 4	$\mu$ PD78312CW-607				64	32		
IC 5	TL082CP			8				4
IC 6	TC4016BPHB				14	7		
IC 7	TL082CP			8				4
IC 9	TL0548CP				8	4		
IC 10	SN74HC373N				20	10		
IC 11	CXK5816P-12L				24	12		
IC 15	TL084CN			4				11
IC 16	TL084CN			4				11
IC 17	TL082CP			8		4		
IC 18	AN608P			2		6		
IC 19	PA0009			4		8		10
IC 20	SN74LS123N				16	8		
IC 21	TC74HC04P				14	7		
IC 25	SN74LS123N				16	8		
IC 26	TC4050BP			1		8		
IC 27	TC74HC00P				14	7		
IC 30	TA7267P		7			4		
IC 31	TA7267P		7			4		
IC 32	TC4538BP				16	8		
IC 34	TC74HC32P				14	7		
IC 35	TC4001BP				14	7		
IC 36	$\mu$ PD4013BC	1.8			16	8		
IC 37	M54532P					7	4.5.12.13	
IC 38	TC74HC08P				14	8		
IC 39	TC74HC4050P				1	8		
IC 40	CXD1095Q				26.58	10.27.42.57		
IC 41	TC74HC08P				14	7		
IC 42	CXK5816P-12L				24	12		
IC 43	TC74HC240P				20	10		
IC 44	CX-7913A				47.61	40.54		
IC 45	M54523P	9					8	
IC 46	CXD1095Q				26.58	10.27.42.57		
IC 47	CXD1095Q				26.58	10.27.42.57		
IC 48	TC74HC04P				14	7		
IC 49	CXK5816P-12L				24	12		
IC 50	TC74HC244P				20	10		
IC 51	CX-7912A				47.61	40.54		
IC 52	TC74HC4050P				1	8		
IC 53	$\mu$ PD4013BC				14	7		
IC 54	TC74HC4538P				16	8		

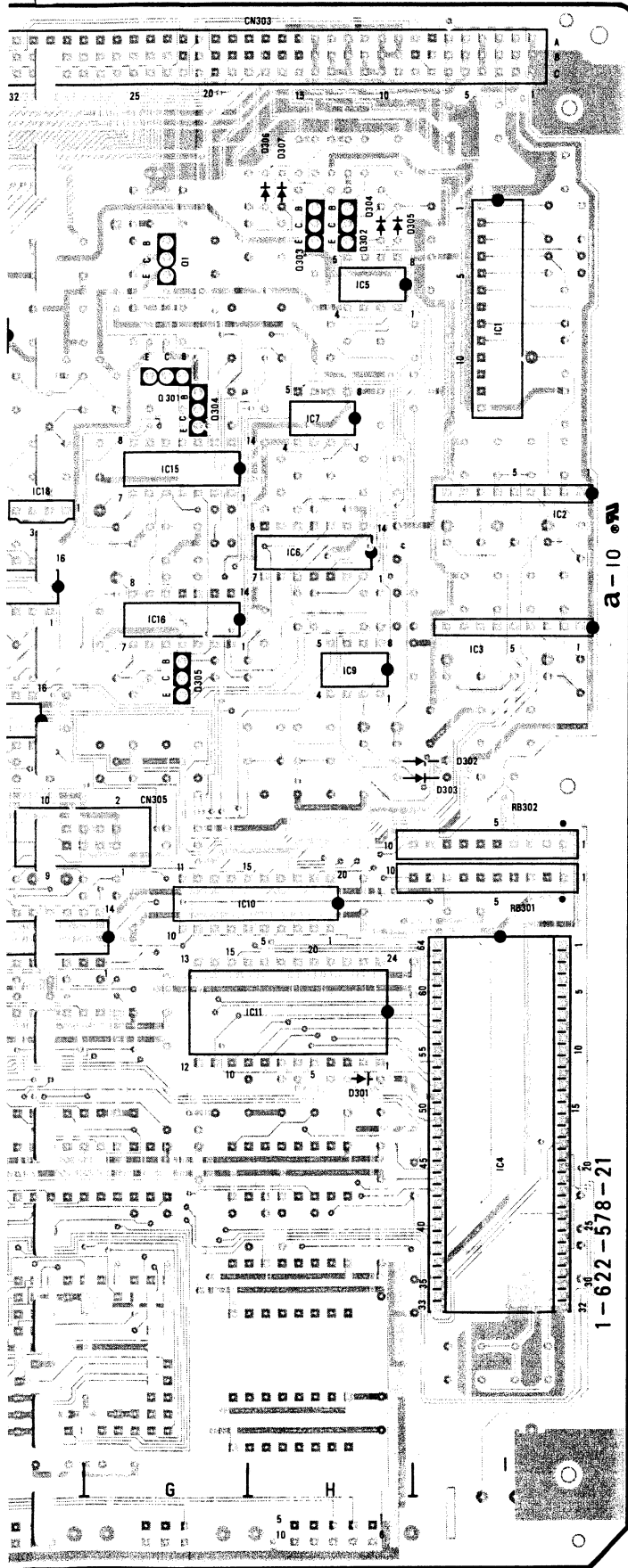
## NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC6 TC4016BP → TC4016BPHB	S/N 10770 ~

SY-64AP (1-622-578-21)

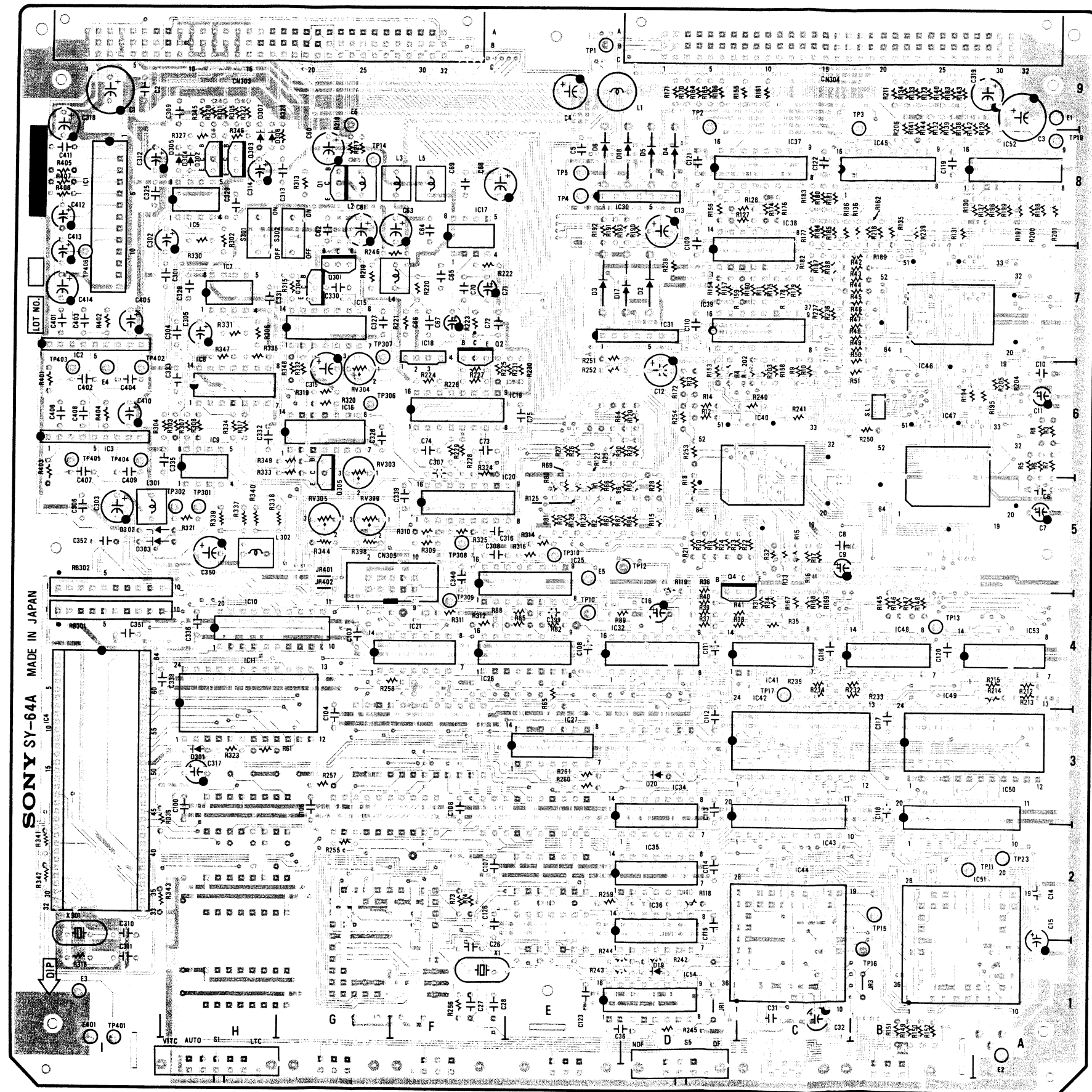
CN303	H-9	Q1	G-8
CN304	C-9	Q2	F-7
CN305	F-5	Q4	C-4
		Q301	G-7
D2	D-7	Q302	H-8
D3	E-7	Q303	H-8
D4	D-8	Q304	G-7
D5	D-8	Q305	G-5
D6	E-8		
D17	D-7	RV303	G-5
D18	D-8	RV304	G-6
D19	D-1	RV305	G-5
D20	D-3	RV399	G-5
D301	H-3		
D302	I-5	S1	H-1
D303	I-5	S5	D-1
D304	H-8	S301	H-8
D305	H-8	S302	G-8
D306	H-8		
D307	H-8	SL1	B-6
E1	A-9	TP1	E-9
E2	A-1	TP2	D-9
E3	I-1	TP3	B-9
E4	I-6	TP4	E-8
E5	E-5	TP5	E-8
E6	G-8	TP10	E-4
E401	I-1	TP11	B-2
		TP12	D-5
IC1	I-8	TP13	B-4
IC2	I-7	TP14	G-8
IC3	I-6	TP15	B-2
IC4	I-3	TP16	B-1
IC5	H-8	TP17	C-4
IC6	H-6	TP19	A-8
IC7	H-7	TP23	A-2
IC9	H-6	TP301	H-5
IC10	H-4	TP302	H-5
IC11	H-4	TP306	G-6
IC15	G-7	TP307	G-7
IC16	G-6	TP308	F-5
IC17	F-8	TP309	F-4
IC18	F-7	TP310	E-5
IC19	F-6	TP401	I-1
IC20	F-5	TP402	I-6
IC21	F-4	TP403	I-6
IC25	E-5	TP404	I-6
IC26	E-4	TP405	I-6
IC27	E-3	TP406	I-7
IC30	D-8		
IC31	D-7	X1	F-1
IC32	D-4	X301	I-1
IC34	D-3		
IC35	D-2		
IC36	D-2		
IC37	C-8		
IC38	C-7		
IC39	C-7		
IC40	C-6		
IC41	C-4		
IC42	C-3		
IC43	C-3		
IC44	C-2		
IC45	B-8		
IC46	B-7		
IC47	B-6		
IC48	B-4		
IC49	B-3		
IC50	A-3		
IC51	B-1		
IC52	A-8		
IC53	A-4		
IC54	D-1		





**SY-64AP** — COMPONENT SIDE —  
1-622-578-21  
BVW-60P BVW-95P  
BVW-65P

17-155

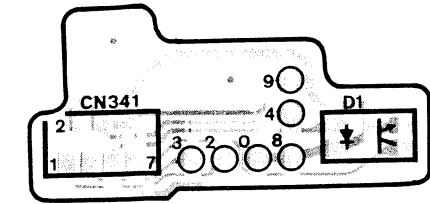


**SY-64AP** — SOLDERING SIDE —  
1-622-578-21  
BVW-60P BVW-95P  
BVW-65P

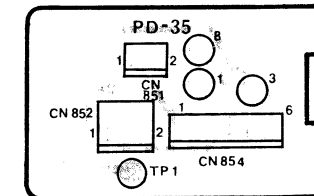
17-156

PD-35; PINCH/CLEANING SOLENOID  
 PTC-15; THREAD/UNTHREAD END SENSOR  
 RM-57; REMOTE CONNECTOR  
 CL-14; CASSETTE-UP COMPARTMENT  
 CL-24; CASSETTE-UP COMPARTMENT LED  
 PC-32/47; LARGE/SMALL CASSETTE DETECTOR  
 PC-33; CASSETTE DOWN DETECTOR  
 PC-41; CASSETTE IN DETECTOR  
 CCM-2; UP/DOWN MOTOR  
 HC-11; HOURS METER

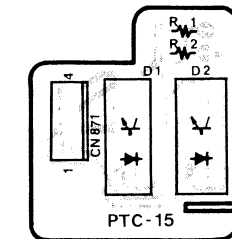
S/N 10192 and higher



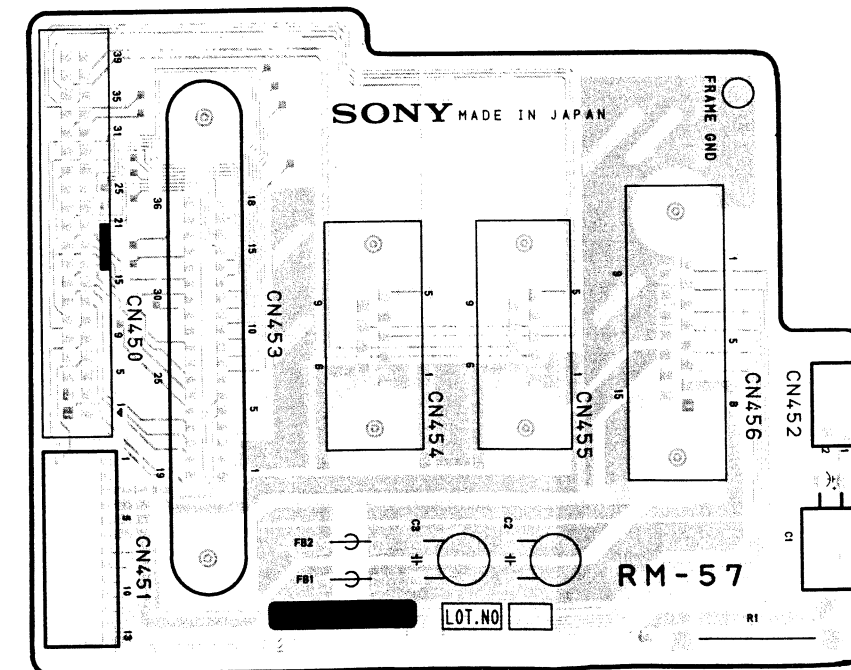
**PC-47** — COMPONENT SIDE —  
 1-628-786-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-75P  
 BVW-70P



**PD-35** — COMPONENT SIDE —  
 1-622-596-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



**PTC-15** — COMPONENT SIDE —  
 1-622-597-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



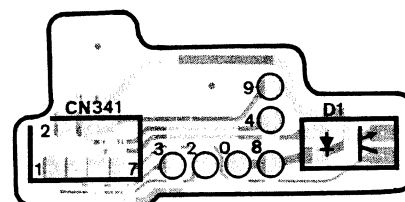
**RM-57** — COMPONENT SIDE —  
 1-624-153-11,12,13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

S/N 12

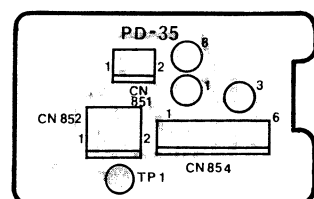


PD-35; PINCH/CLEANING SOLENOID  
 PTC-15; THREAD/UNTHREAD END SENSOR  
 RM-57; REMOTE CONNECTOR  
 CL-14; CASSETTE-UP COMPARTMENT  
 CL-24; CASSETTE-UP COMPARTMENT LED  
 PC-32/47; LARGE/SMALL CASSETTE DETECTOR  
 PC-33; CASSETTE DOWN DETECTOR  
 PC-41; CASSETTE IN DETECTOR  
 CCM-2; UP/DOWN MOTOR  
 HC-11; HOURS METER

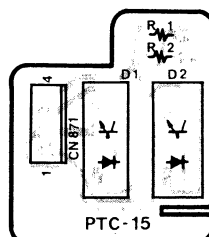
S/N 10192 and higher



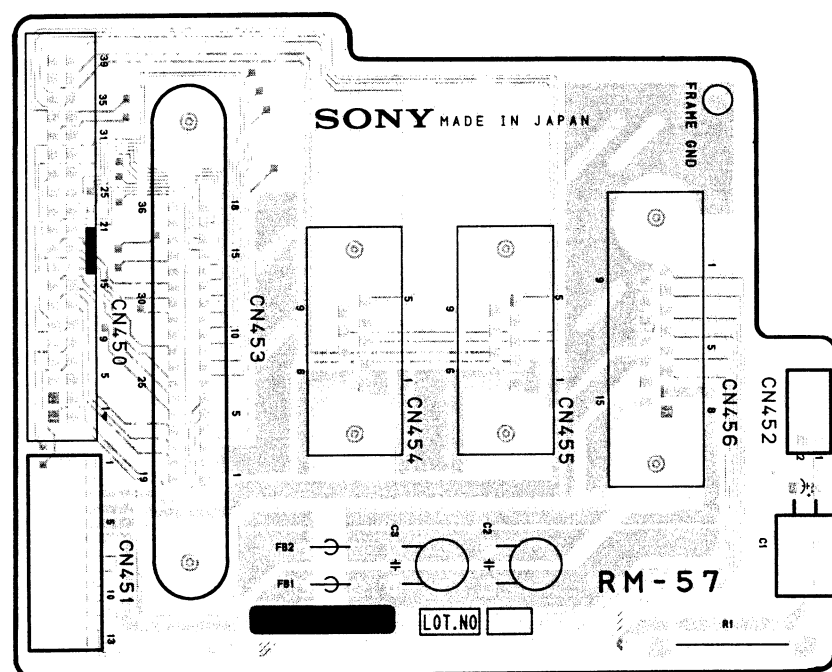
**PC-47** — COMPONENT SIDE —  
 1-628-786-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P



**PD-35** — COMPONENT SIDE —  
 1-622-596-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

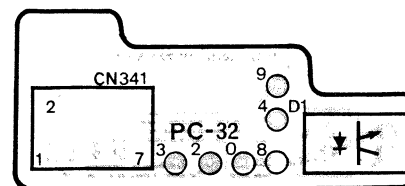


**PTC-15** — COMPONENT SIDE —  
 1-622-597-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P

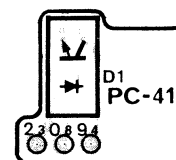


**RM-57** — COMPONENT SIDE —  
 1-624-153-11,12,13  
 BVW-60P BVW-70P  
 BVW-65P BVW-75P  
 BVW-95P BVW-96P

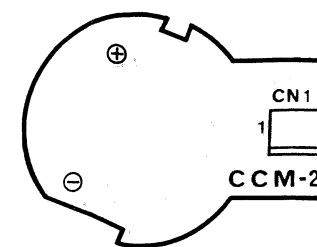
S/N 10061 through 10191



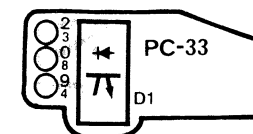
**PC-32** — COMPONENT SIDE —  
 1-622-603-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P



**PC-41** — COMPONENT SIDE —  
 1-623-267-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P



**CCM-2** — COMPONENT SIDE —  
 1-623-198-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P

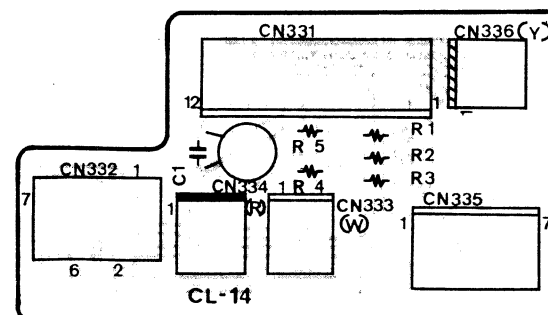


**PC-33** — COMPONENT SIDE —  
 1-622-604-12  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P

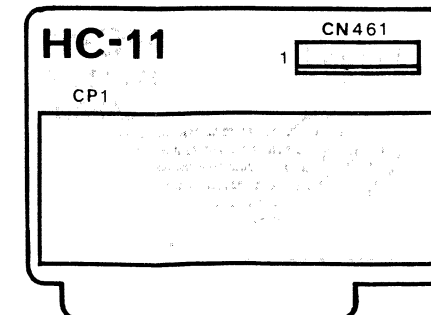
S/N 12112 and higher



**CL-24** — COMPONENT SIDE —  
 1-635-029-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



**CL-14** — COMPONENT SIDE —  
 1-622-602-11  
 BVW-60P BVW-75P  
 BVW-65P  
 BVW-70P



**HC-11** — COMPONENT SIDE —  
 1-622-595-11  
 BVW-60P BVW-75P  
 BVW-65P BVW-95P  
 BVW-70P BVW-96P



KY-96B/96C (1-622-553-12)

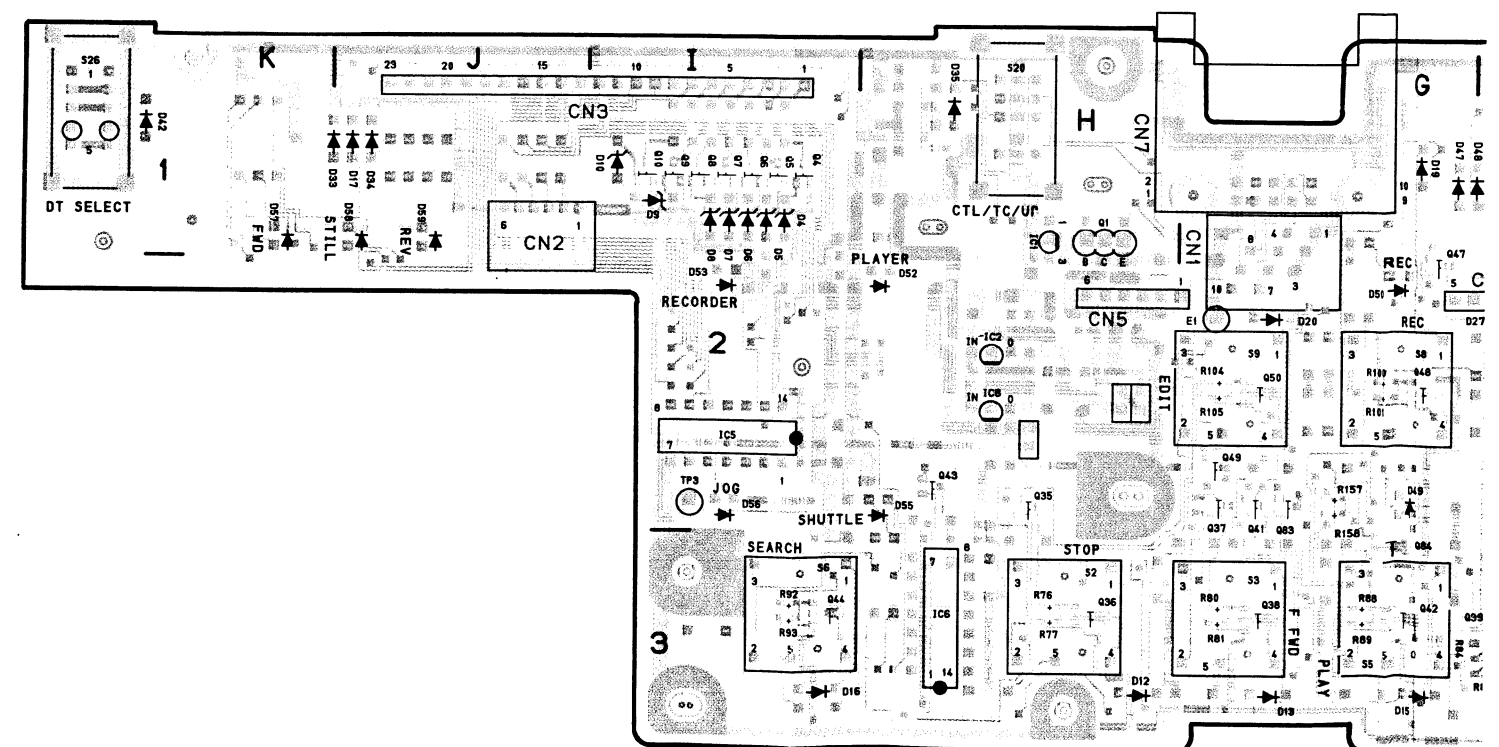
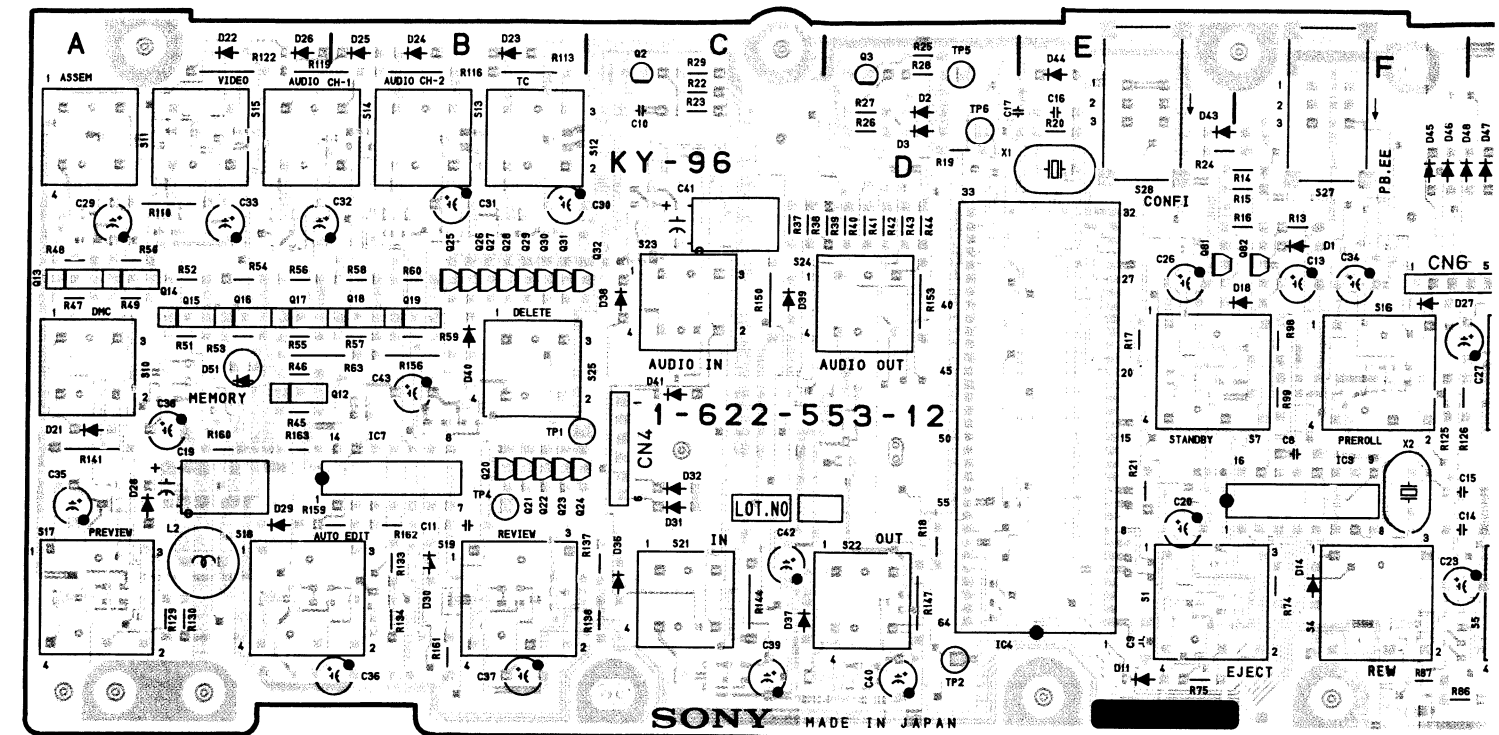
REF. NO	TYPE	PIN NO.		
		+9V	+5V	GND
IC 1	M5236L	*	*	2
IC 2	NJM78L05A	1		3
IC 3	MB88201H-539N		16	8
IC 4	M50747H-601SP			27
IC 5	M54516P	*	*	7
IC 6	M54516P	*	*	7
IC 7	M54516P	*	*	7
IC 8	NJM78L05A	*	*	3

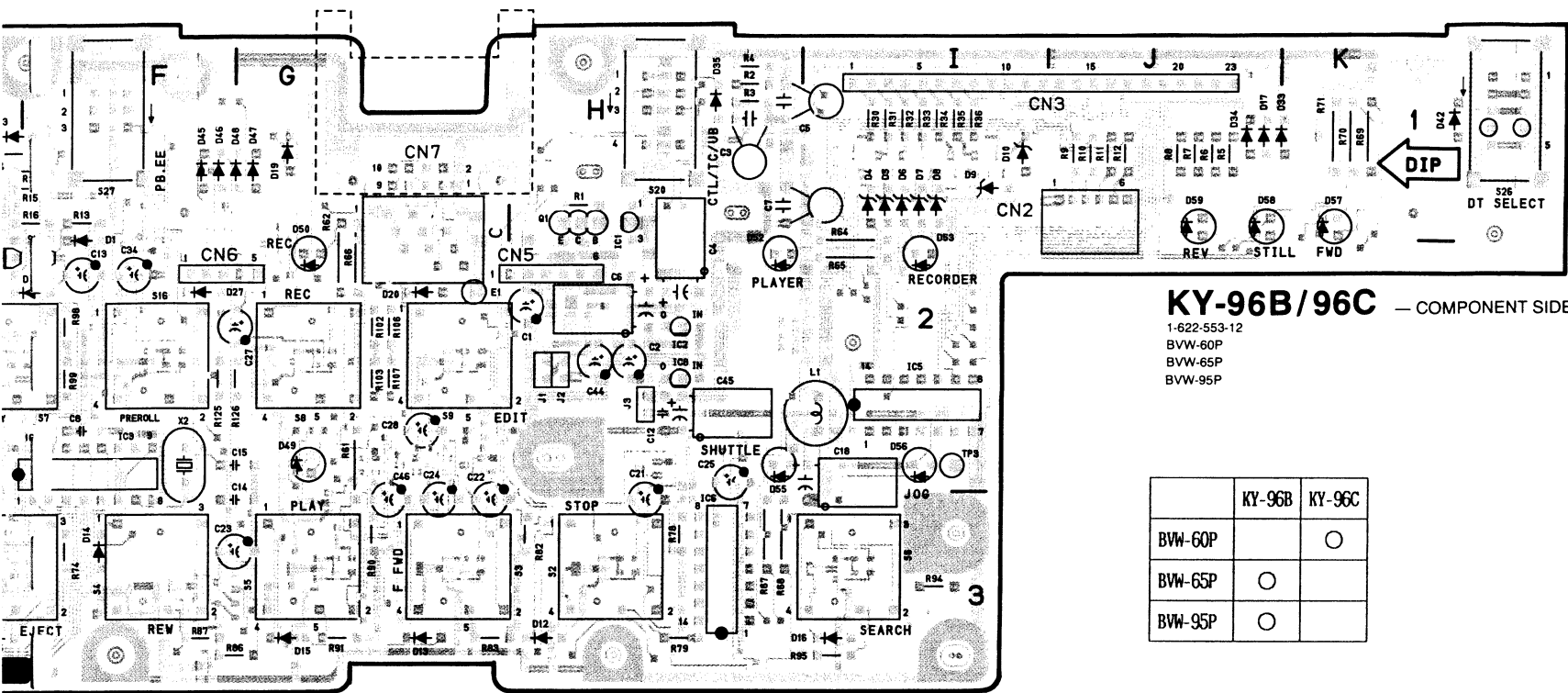
\* REFER TO SCHEMATIC

KY-96B/96C (1-622-553-12)

CN1	G-1	D48	F-1	Q34	E-3	S1	E-3
CN2	J-1	D49	G-2	Q35	H-2	S2	H-3
CN3	I-1	D50	G-2	Q36	H-3	S3	G-3
CN4	C-2	D51	A-2	Q37	G-2	S4	F-3
CN5	H-2	D52	H-2	Q38	G-3	S5	G-3
CN6	F-2	D53	I-2	Q39	F-3	S6	I-3
CN7	G-1	D55	H-2	Q40	F-3	S7	E-2
		D56	I-2	Q41	G-2	S8	G-2
D1	F-1	D57	K-1	Q42	G-3	S9	G-2
D2	D-1	D58	J-1	Q43	H-2	S10	A-2
D3	D-1	D59	J-1	Q44	I-3	S11	A-1
D4	I-1			Q45	E-2	S12	B-1
D5	I-1	E1	G-2	Q46	E-2	S13	B-1
D6	I-1			Q47	G-1	S14	A-1
D7	I-1	IC1	H-1	Q48	G-2	S15	A-1
D8	I-1	IC2	H-2	Q49	G-2	S16	F-2
D9	I-1	IC3	F-2	Q50	G-2	S17	A-3
D10	I-1	IC4	E-2	Q51	A-1	S18	A-3
D11	E-3	IC5	I-2	Q52	A-1	S19	B-3
D12	H-3	IC6	H-3	Q53	B-1	S20	H-1
D13	G-3	IC7	B-2	Q54	B-1	S21	C-3
D14	F-3	IC8	H-2	Q55	B-1	S22	D-3
D15	G-3			Q56	B-1	S23	C-2
D16	I-3	Q1	H-1	Q57	B-1	S24	D-2
D17	J-1	Q2	C-1	Q58	A-1	S25	B-2
D18	F-2	Q3	D-1	Q59	A-1	S26	K-1
D19	G-1	Q4	I-1	Q60	A-1	S27	F-1
D20	G-2	Q5	I-1	Q61	F-1	S28	E-1
D21	A-2	Q6	I-1	Q62	F-2		
D22	A-1	Q7	I-1	Q63	A-2	TP1	B-2
D23	B-1	Q8	I-1	Q64	A-3	TP2	D-3
D24	B-1	Q9	I-1	Q65	B-3	TP3	I-2
D25	B-1	Q10	I-1	Q66	A-3	TP4	B-2
D26	A-1	Q12	A-2	Q67	B-3	TP5	D-1
D27	F-2	Q13	A-2	Q68	B-3	TP6	D-1
D28	A-2	Q14	A-2	Q69	A-2		
D29	A-3	Q15	A-2	Q70	A-2	X1	E-1
D30	B-3	Q16	A-2	Q71	C-3	X2	F-2
D31	C-2	Q17	A-2	Q72	C-3		
D32	C-2	Q18	B-2	Q73	D-3		
D33	J-1	Q19	B-2	Q74	D-3		
D34	J-1	Q20	B-2	Q75	C-1		
D35	H-1	Q21	B-2	Q76	C-1		
D36	C-3	Q22	B-2	Q77	D-2		
D37	C-3	Q23	B-2	Q78	D-2		
D38	C-2	Q24	C-2	Q79	B-2		
D39	C-2	Q25	B-2	Q80	B-2		
D40	B-2	Q26	B-2	Q81	E-2		
D41	C-2	Q27	B-2	Q82	F-2		
D42	K-1	Q28	B-2	Q83	G-2		
D43	E-1	Q29	B-2	Q84	G-3		
D44	E-1	Q30	B-2				
D45	F-1	Q31	B-2				
D46	F-1	Q32	C-2				
D47	G-1	Q33	E-2				

KY-96B/96C; KEY BOARD  
 KY-107/107A; KEY BOARD  
 DP-71A; TIME COUNTER DISPLAY  
 PTC-32; SEARCH DIAL  
 PT-9; POWER TRANSISTOR

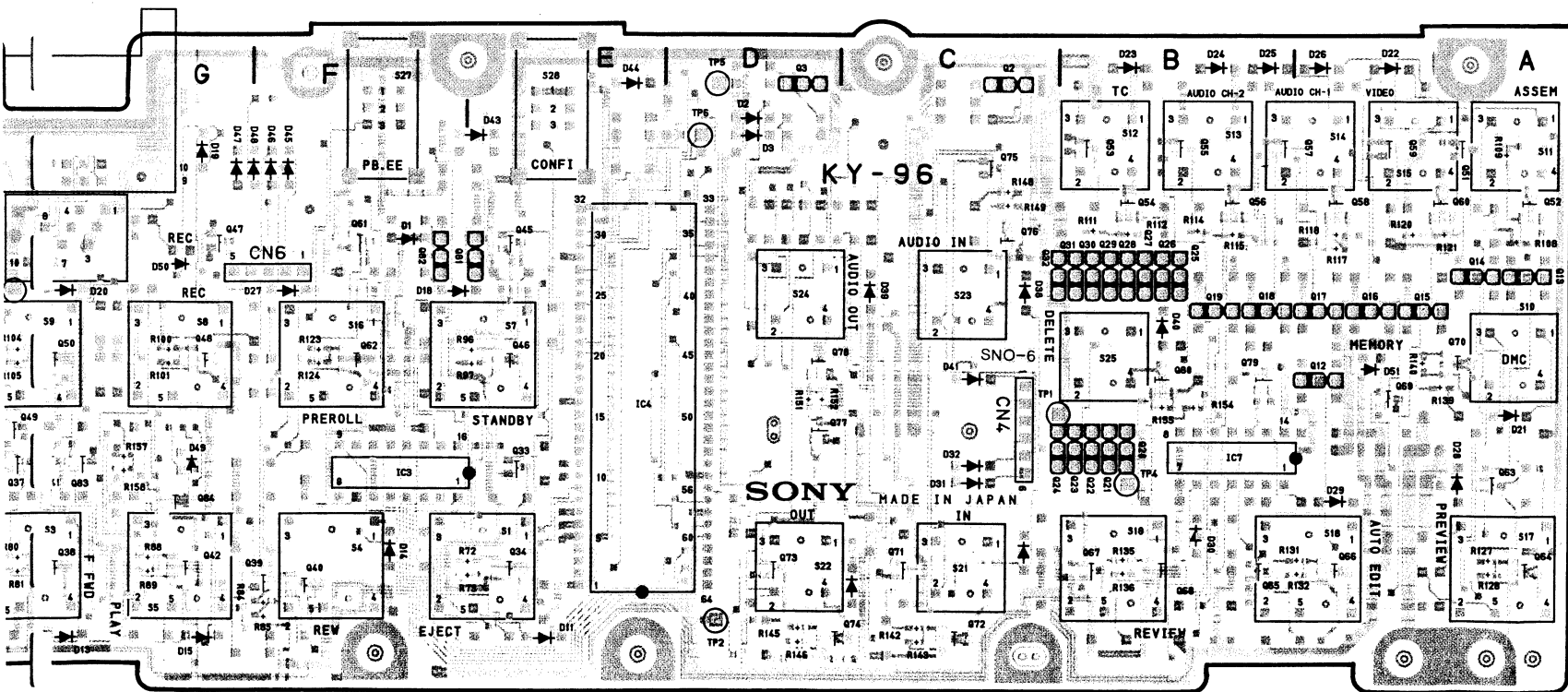




KY-96B/96C — COMPONENT SIDE —

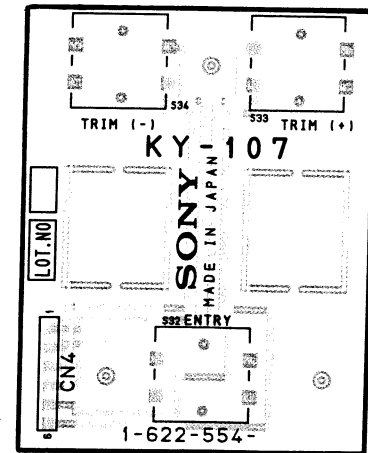
1-622-553-12  
BVW-60P  
BVW-65P  
BVW-95P

	KY-96B	KY-96C
BVW-60P		○
BVW-65P	○	
BVW-95P	○	



KY-96B/96C — SOLDERING SIDE —

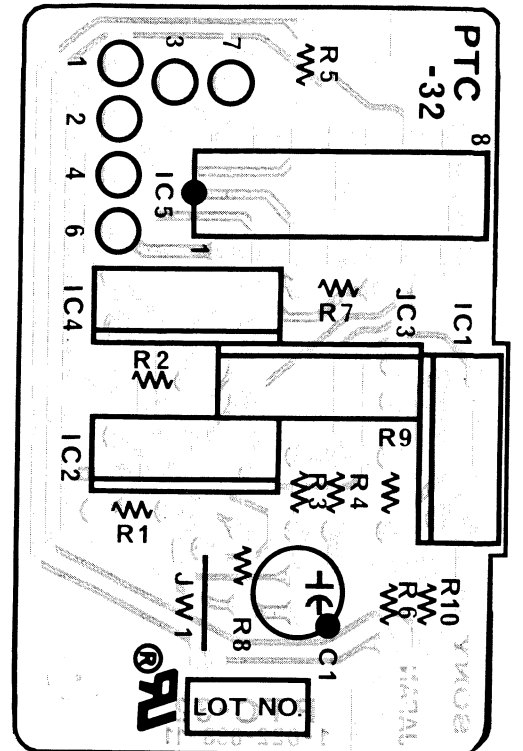
1-622-553-12  
BVW-60P  
BVW-65P  
BVW-95P



KY-107/107A — COMPONENT SIDE —

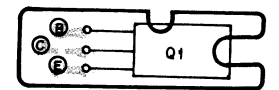
1-622-554-11  
BVW-60P  
BVW-65P  
BVW-95P

	KY-107	KY-107A
BVW-60P		○
BVW-65P	○	
BVW-95P	○	



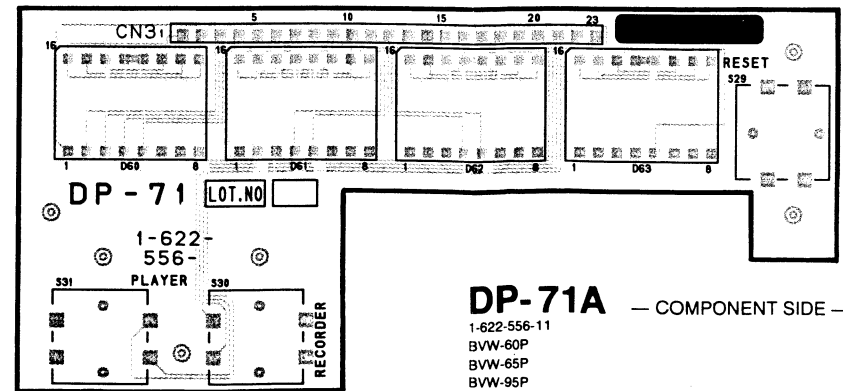
PTC-32 — COMPONENT SIDE —

1-622-638-11  
BVW-60P  
BVW-65P  
BVW-95P



PT-9 — SOLDERING SIDE —

1-605-018-11  
BVW-60P  
BVW-65P  
BVW-95P



DP-71A — COMPONENT SIDE —

1-622-556-11  
BVW-60P  
BVW-65P  
BVW-95P

TC-40AP (1-622-579-22)

REF.No	TYPE	PIN NO.				
		+12V	+5V	GND	-5V	-12V
IC 204	NJM2903M		8		7	
IC 205	TC4052BF		16	8		
IC 206	TL082CPS	8		4	4	
IC 208	NJM4558M		8			
IC 209	TC4053BF		16	8		
IC 210	NJM4558M		8		4	
IC 211	NJM4562D-D		16		4	
IC 212	TC4538BF		16	8		
IC 213	TC4028BF		16	8		
IC 214	TC4075BF		16	8		
IC 215	NJM4556D	8				4

\* REFER TO SCHEMATIC

TC-40AP (1-622-579-22)

- CN205

I-3
- D206

D-4
- D207

E-1
- E201

E-5
- E301

C-3
- IC204

D-4
- IC205

D-5
- IC206

C-2
- IC208

E-1
- IC209

F-2
- IC210

G-2
- IC211

H-1
- IC212

D-5
- IC213

H-4
- IC214

H-4
- IC215

C-1
- Q209

H-2
- Q210

H-2
- Q211

C-2
- Q212

C-3
- Q213

C-2
- Q214

D-3
- Q215

H-3
- Q216

H-4
- RV6

C-3
- RV201

D-4
- RV202

D-2
- SL202

C-2
- TP203

D-3
- TP205

D-4
- TP206

D-4
- TP207

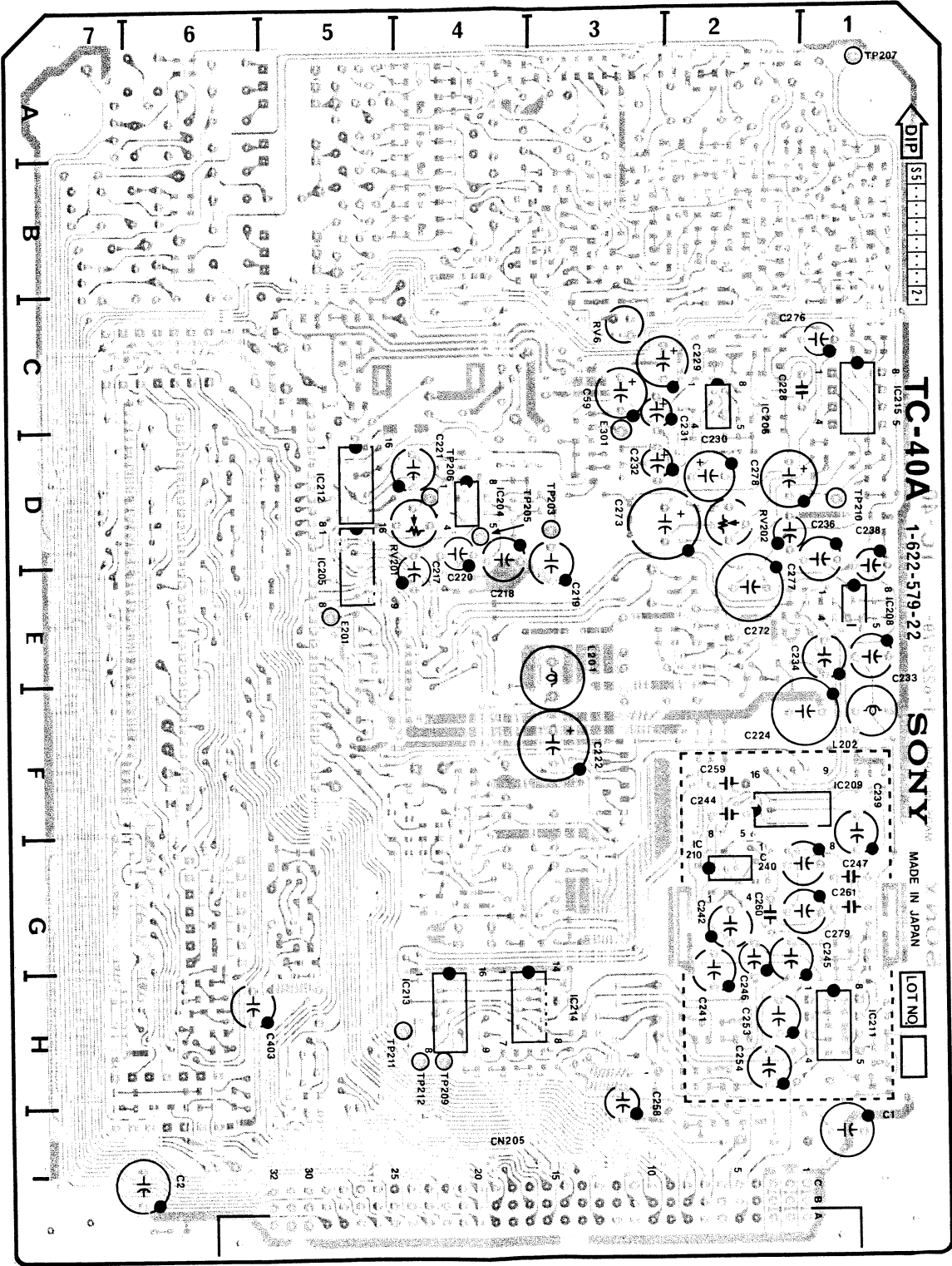
A-1
- TP209

H-4
- TP210

D-1
- TP211

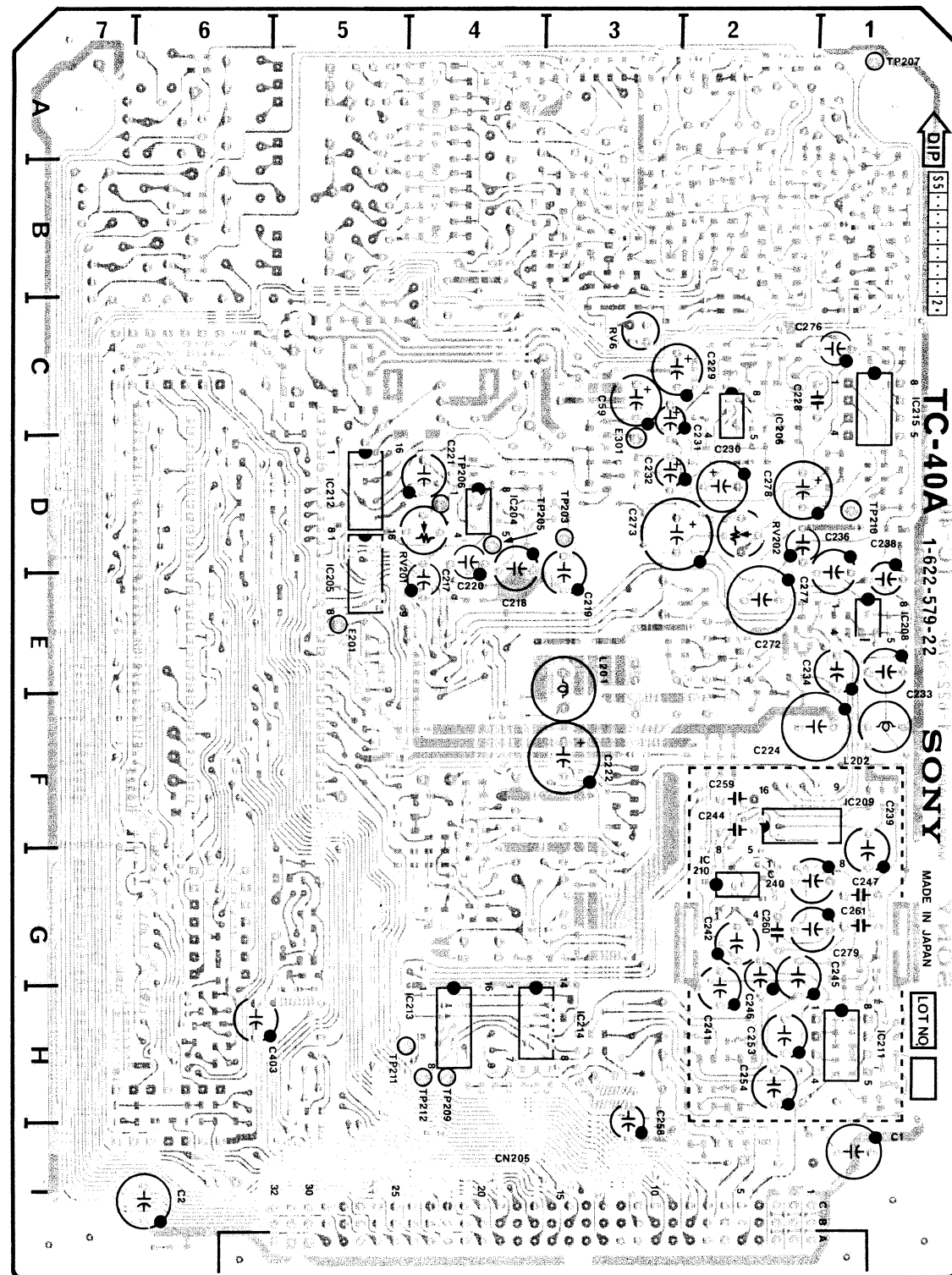
H-4
- TP212

H-4

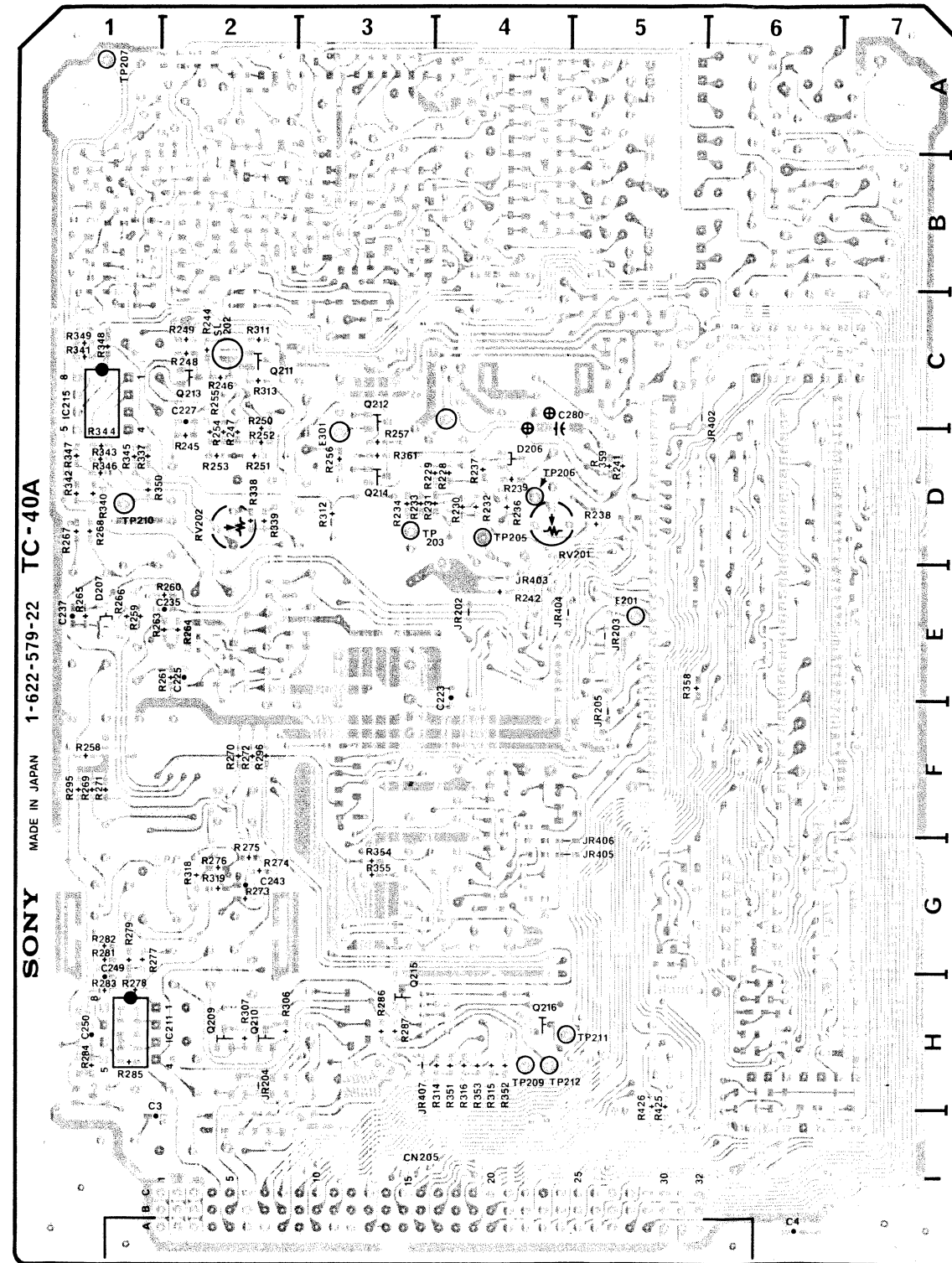


TC-40AP — COMPONENT SIDE —  
1-622-579-22  
BVW-60P  
BVW-65P  
BVW-95P





**TC-40AP** — COMPONENT SIDE —  
1-622-579-22  
BVW-60P  
BVW-65P  
BVW-95P



**TC-40AP** — SOLDERING SIDE —  
1-622-579-22  
BVW-60P  
BVW-65P  
BVW-95P

TC-40AP (1-622-579-23)

REF.No.	TYPE	PIN NO.				
		+12V	+5V	GND	-5V	-12V
IC 204	NJM2903M	8	8	8	7	
IC 205	TC4052BF		16			
IC 206	NJM082M				4	
IC 208	NJM4558M		8		4	
IC 209	TC4053BF		16		4	
IC 210	NJM4558M		8		4	
IC 211	NJM4562D-D		16			
IC 212	TC4538BF		16			
IC 213	TC4028BF	8	16	8		4
IC 214	TC4075BF		16	8		
IC 215	NJM4556D					

TC-40AP (1-622-579-23)

- CN205

I-4
- D206

E-4
- D207

F-1
- E201

D-3
- E301

D-1
- IC204

F-4
- IC205

E-3
- IC206

E-1
- IC208

F-1
- IC209

G-2
- IC210

G-2
- IC211

H-1
- IC212

E-5
- IC213

H-4
- IC214

H-3
- IC215

D-3
- Q209

H-2
- Q210

H-2
- Q211

E-2
- Q212

E-1
- Q213

D-2
- Q214

E-4
- Q215

E-2
- RV201

E-5
- RV202

D-3
- SL202

D-1
- TP203

E-4
- TP205

E-4
- TP206

F-5
- TP207

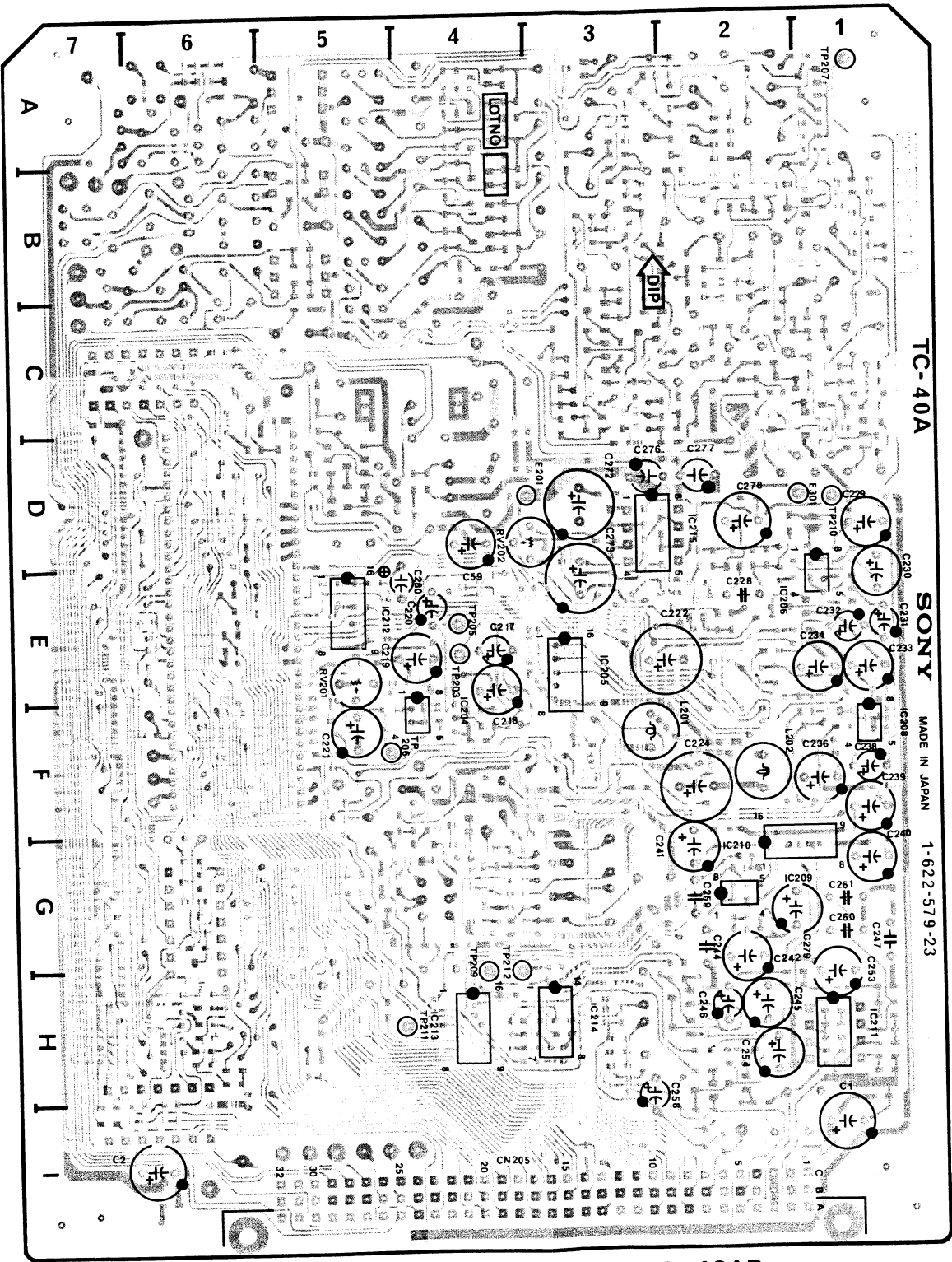
A-1
- TP209

H-4
- TP210

D-1
- TP211

H-4
- TP212

H-4



TC-40AP—COMPONENT SIDE—

1-622-579-23

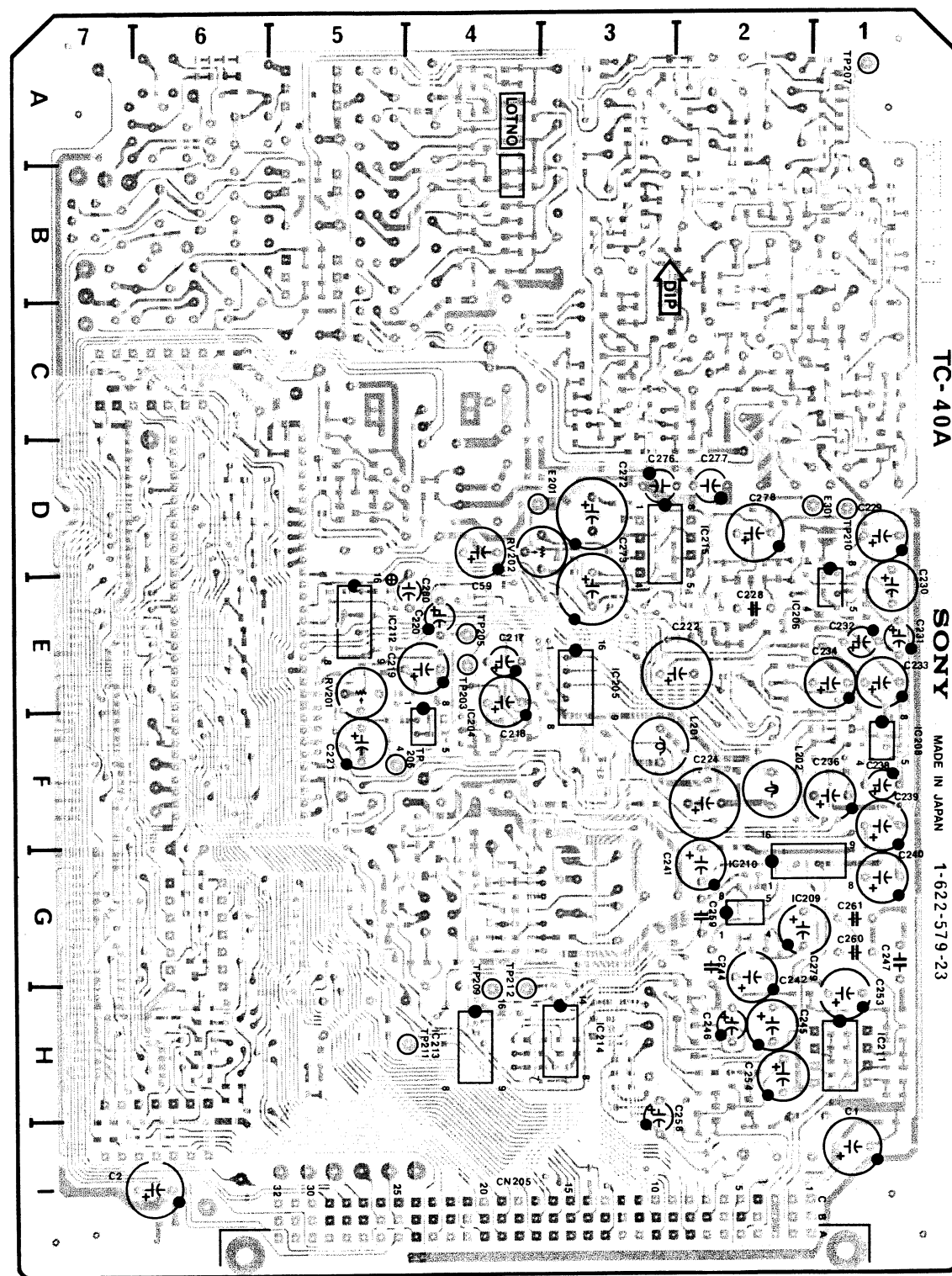
BVW-60P

BVW-65P

BVW-95P

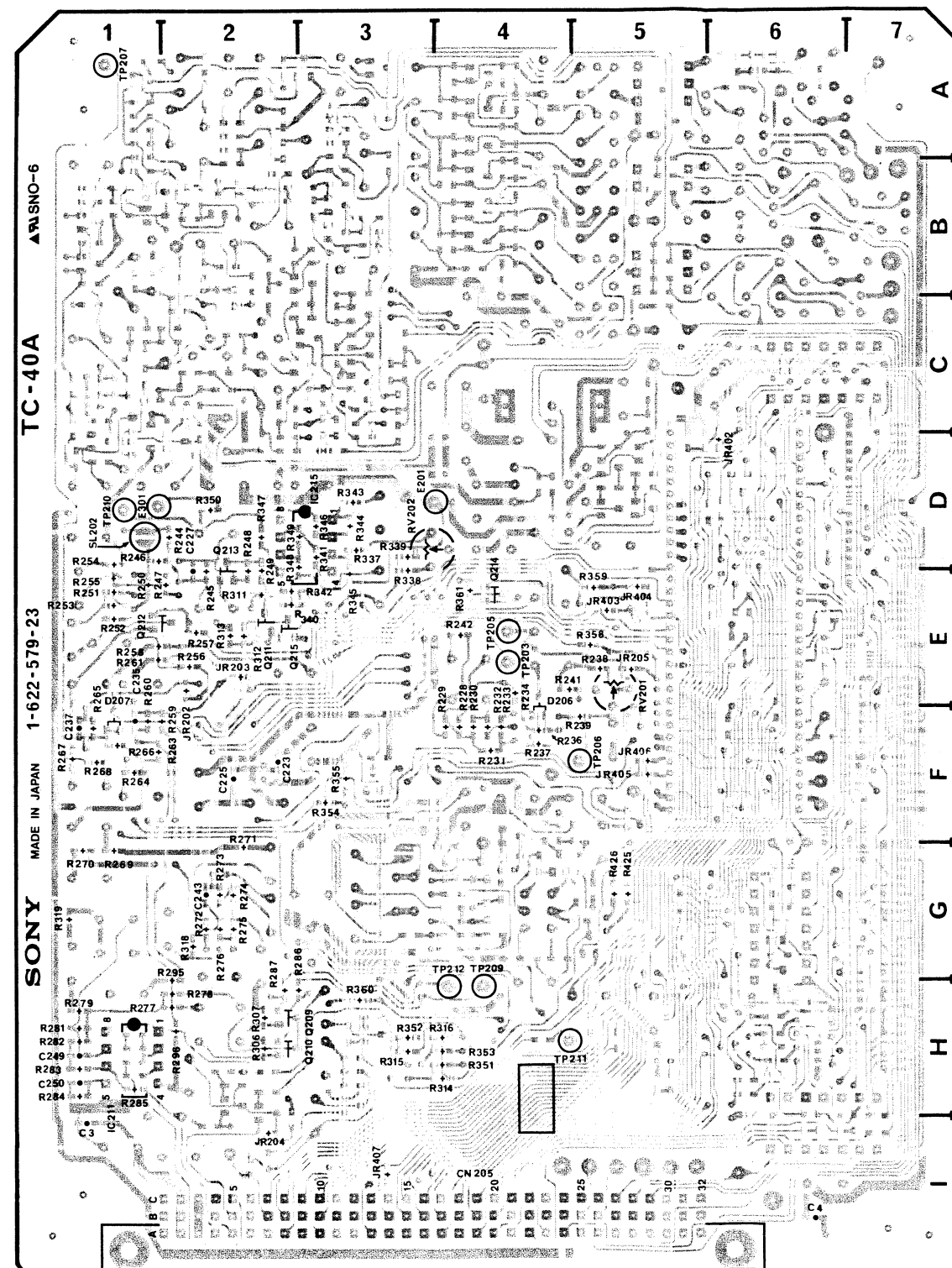
TC-40AP; LTC PB AMPLIFIER

S/N 10544 and higher



TC-40AP—COMPONENT SIDE—  
1-622-579-23  
BVW-60P  
BVW-65P  
BVW-95P

17-176 (b)

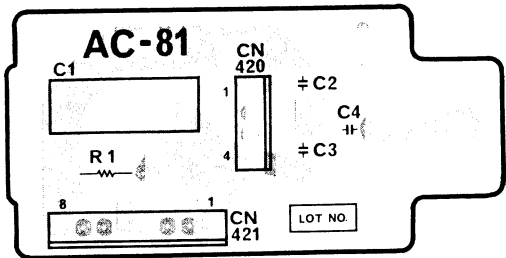


TC-40AP—SOLDERING SIDE—  
1-622-579-23  
BVW-60P  
BVW-65P  
BVW-95P

17-177 (b)

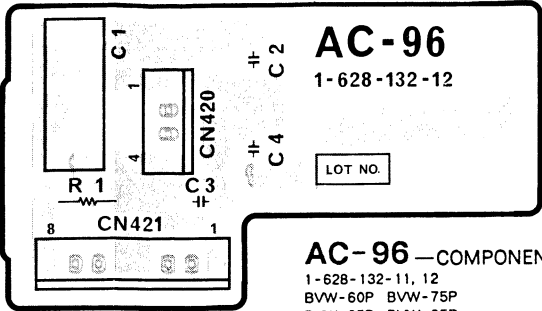
AC-81/96; RELAY BOARD OF AC INLET  
C1; SWITCHING REGULATOR  
C2; SWITCHING REGULATOR  
M1; SWITCHING REGULATOR  
M2; SWITCHING REGULATOR

S/N 10061 through 10191

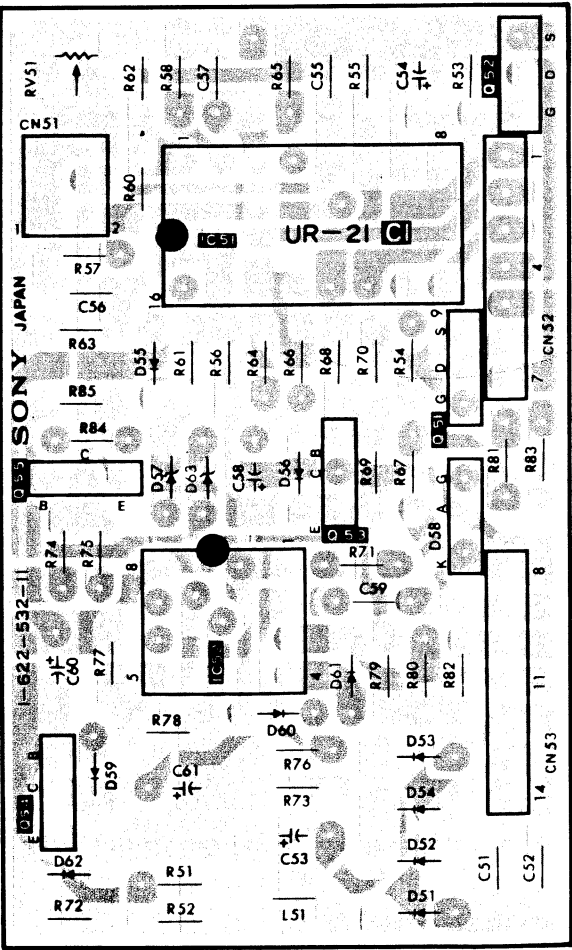


AC-81 — COMPONENT SIDE —  
1-622-608-12  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

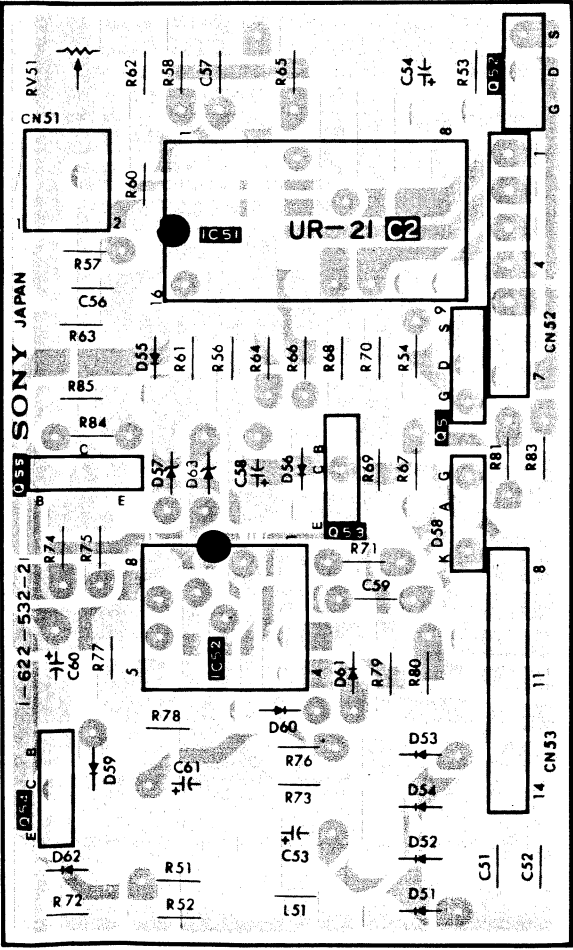
S/N 10192 and higher



AC-96 — COMPONENT SIDE —  
1-628-132-11, 12  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

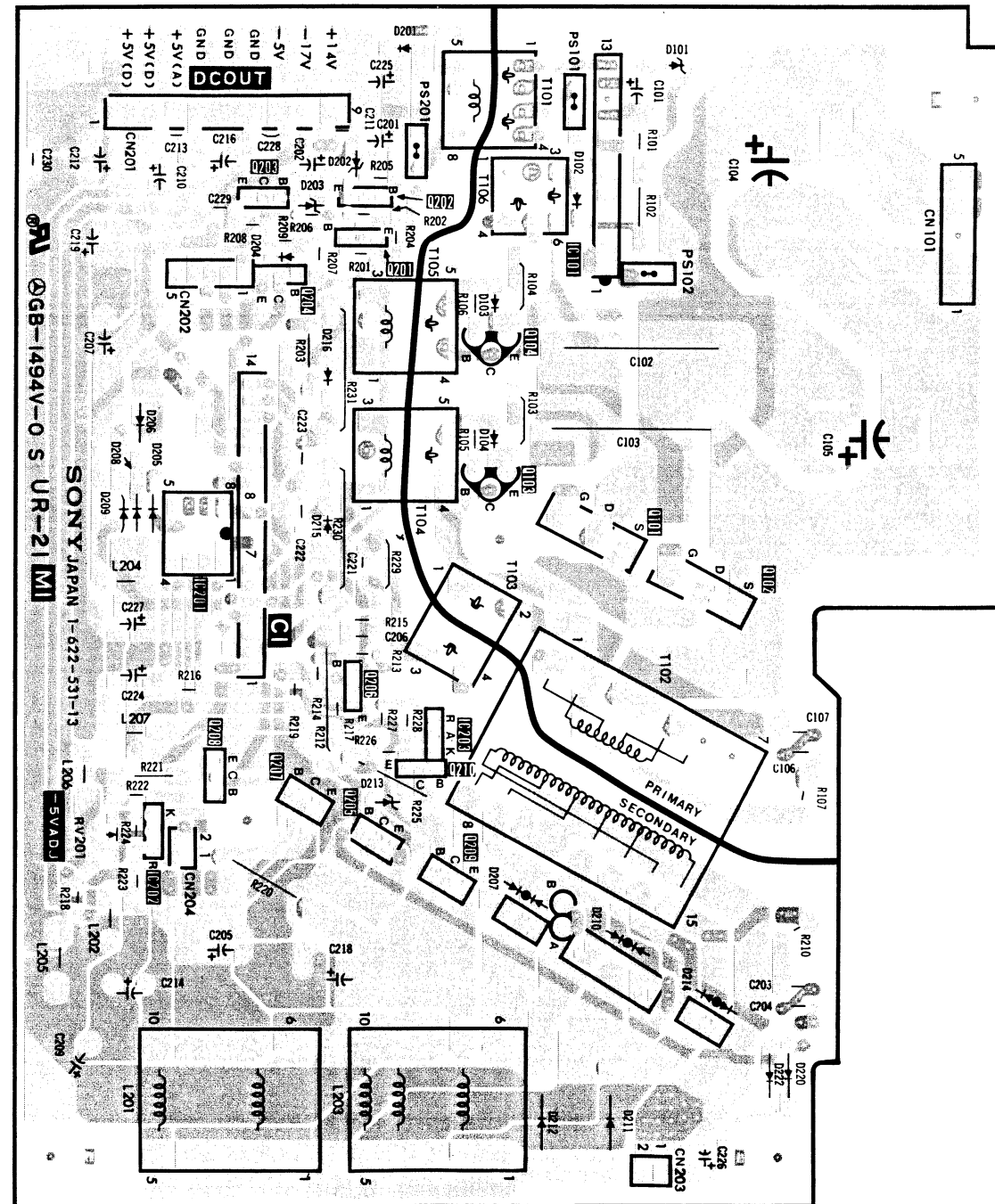


UR-21B, C1 — SOLDERING SIDE —  
1-622-532-11  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

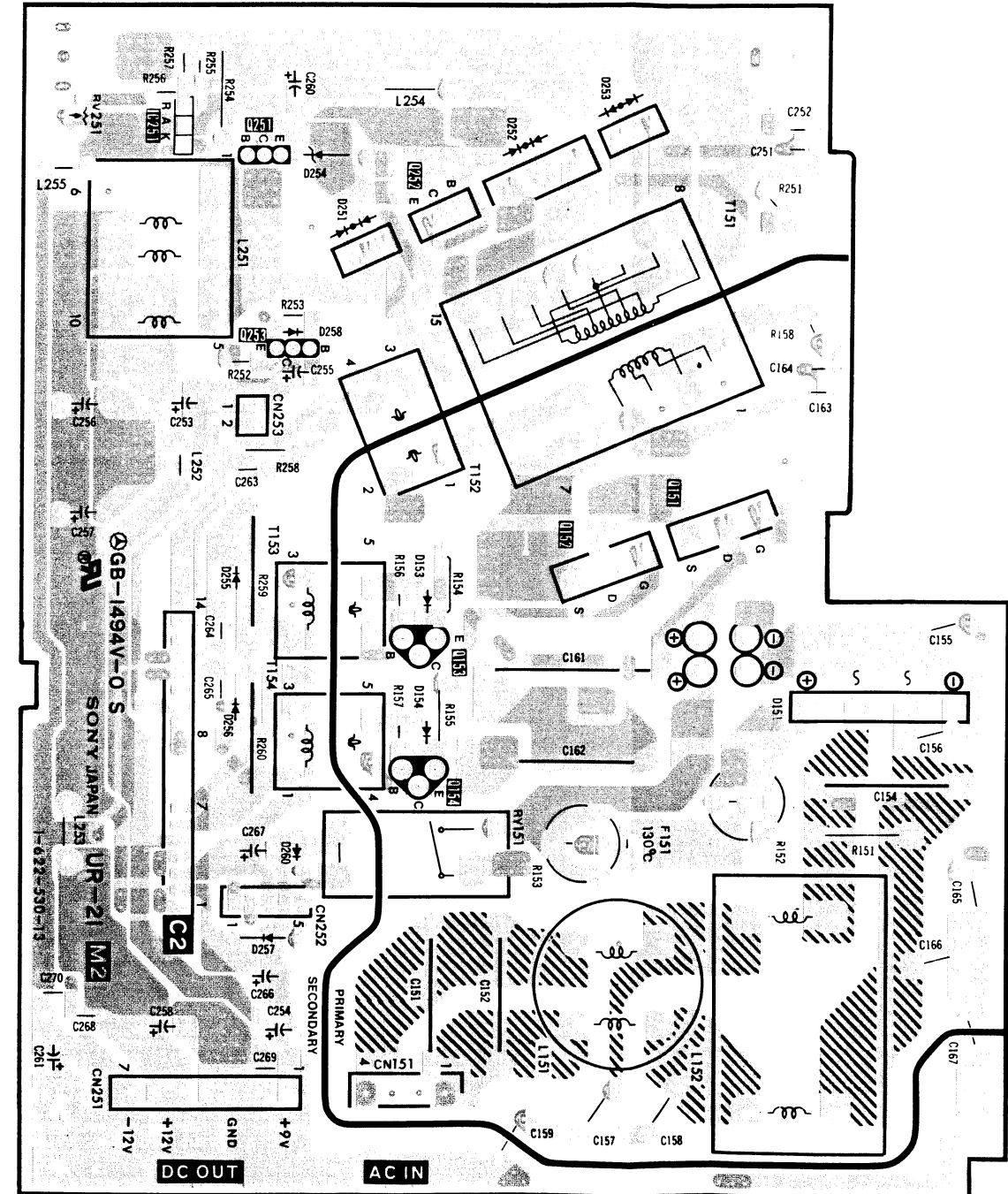


UR-21B, C2 — SOLDERING SIDE —  
1-622-532-21  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



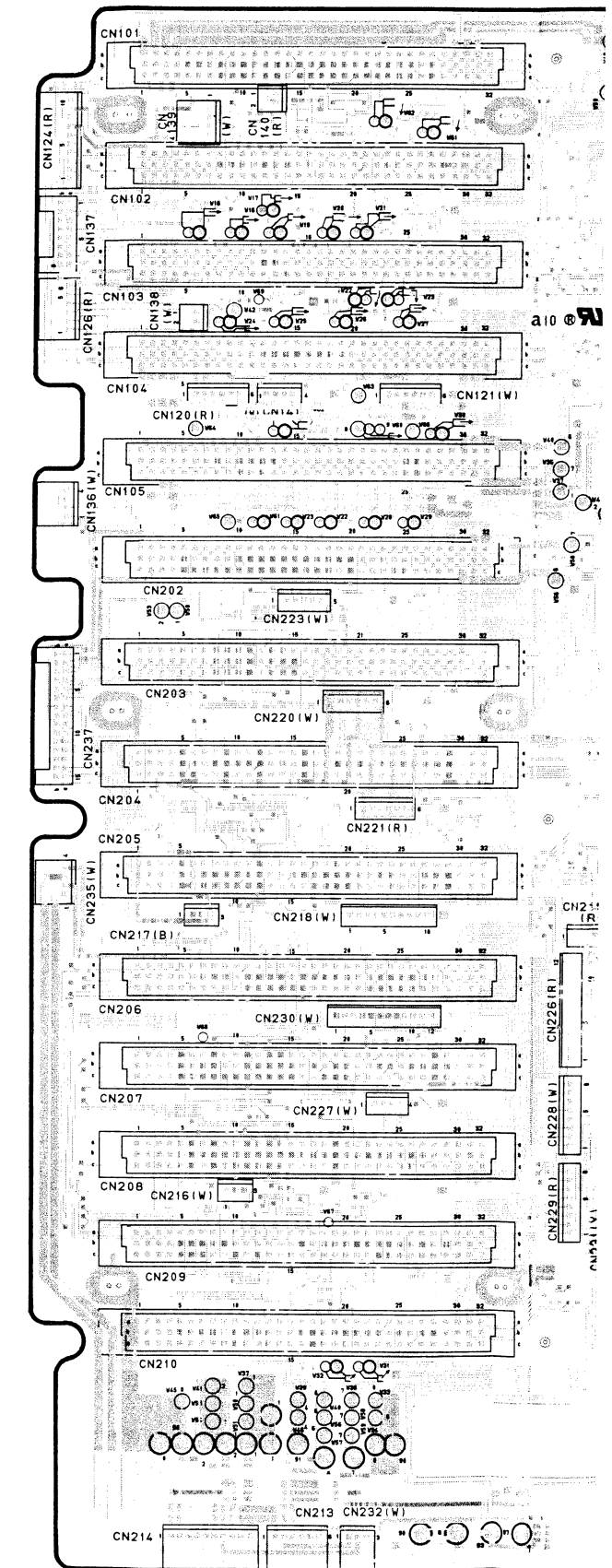


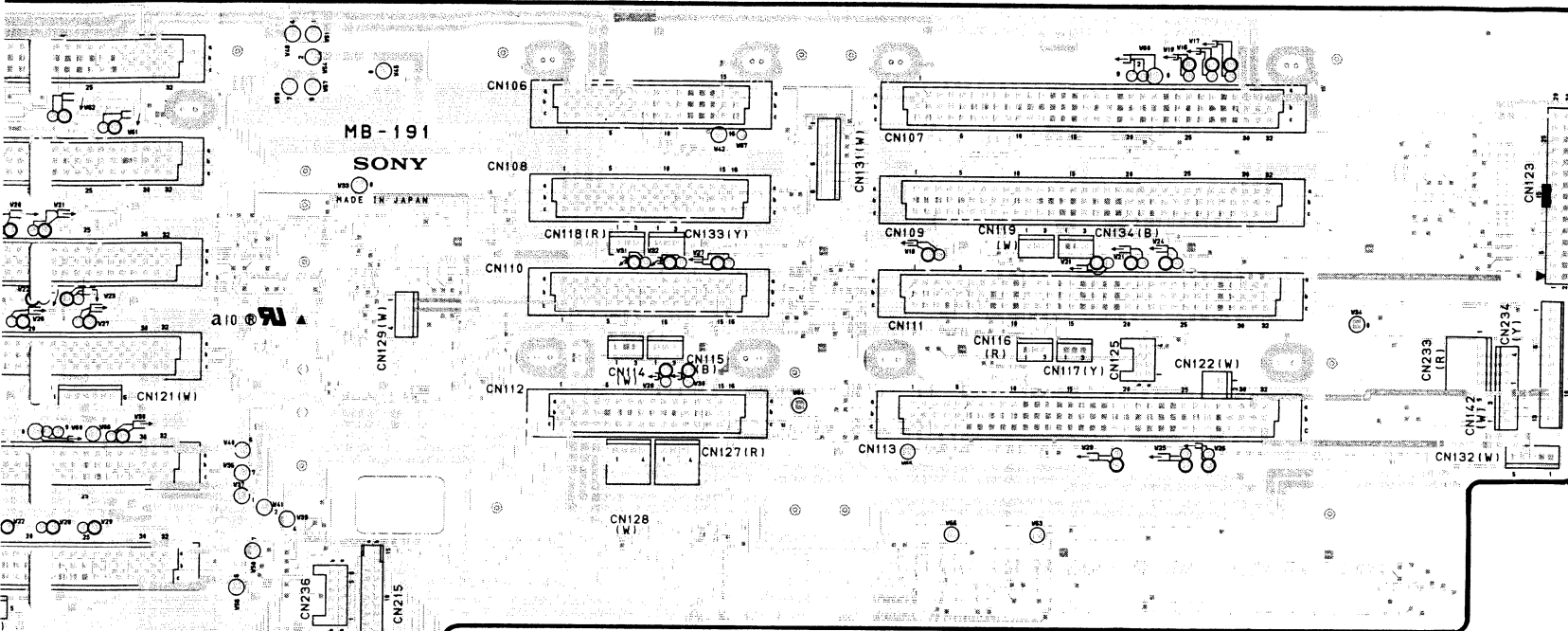
**UR-21B, M1** — SOLDERING SIDE —  
1-622-531-13  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P



**UR-21B, M2** — SOLDERING SIDE —  
1-622-530-13  
BVW-60P BVW-75P  
BVW-65P BVW-95P  
BVW-70P BVW-96P

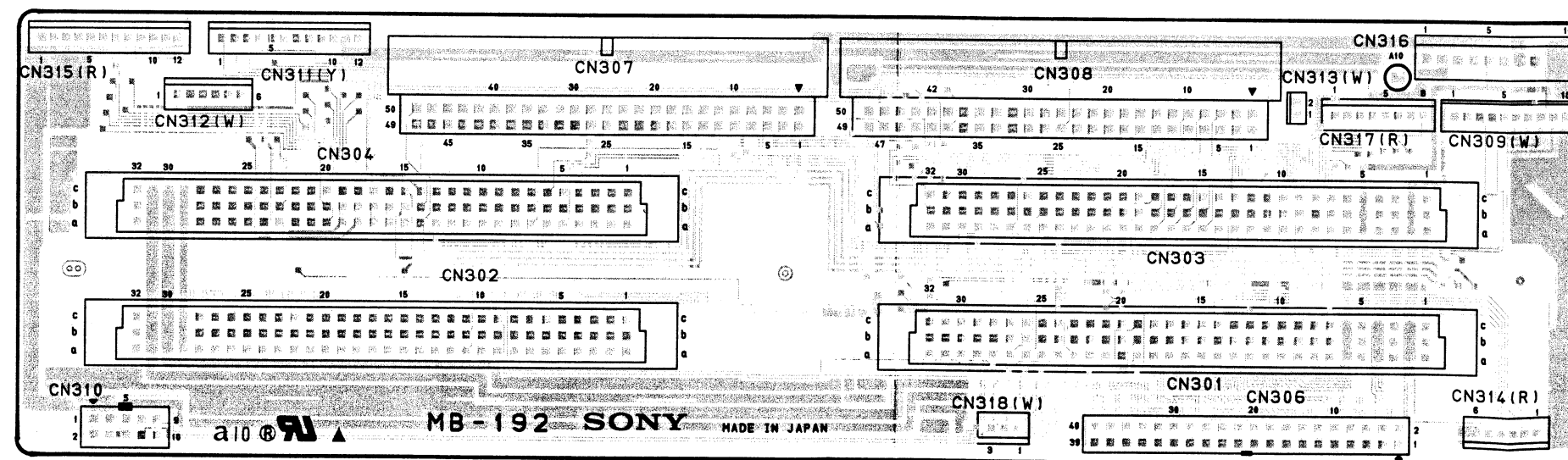
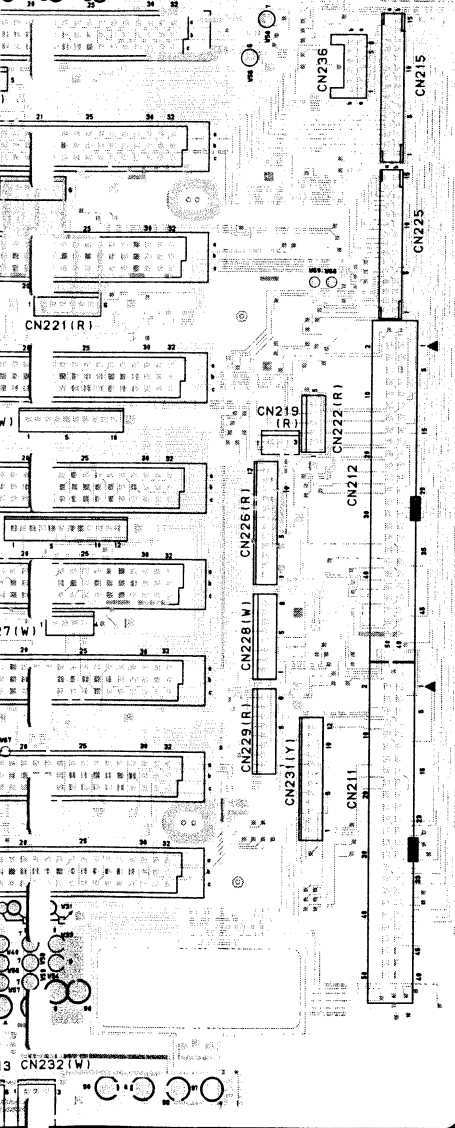
MB-191/191A/191B/191C; MOTHER BOARD  
MB-192; MOTHER BOARD





MB-191/191A/191B/191C—SOLDERING SIDE—  
1-624-047-11,12,13  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P

	MB-191	MB-191A	MB-191B	MB-191C
BVW-60P				○
BVW-65P			○	
BVW-70P		○		
BVW-75P	○			
BVW-95P			○	
BVW-96P	○			



MB-192—SOLDERING SIDE—  
1-624-152-11,12,13  
BVW-60P BVW-70P  
BVW-65P BVW-75P  
BVW-95P BVW-96P 17-192



## SECTION 18

### SEMICONDUCTOR ELECTRODES

ICs, transistors and diodes whoses functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

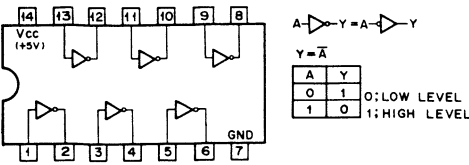
IC	PAGE	IC	PAGE	IC	PAGE
74F04PC.....	18-4	CXA1041M.....	18-21	MSL917RS.....	18-37
74F74PC.....	18-4	CXA1096M.....	18-21	MSM5204ARS.....	18-37
		CXD1022CQ.....	18-22		
AM26LS30PC.....	18-4	CXD1023AQ.....	18-23	NE5532P.....	18-38
AN3920K.....	18-4	CXD1024Q.....	18-24	NJM082M.....	18-38
AN3922NK.....	18-5	CXD1045Q.....	18-25	NJM1496M.....	18-38
AN607P.....	18-5	CXD1095Q.....	18-26	NJM2041M-D.....	18-38
AN608P.....	18-5	CXD1131Q.....	18-27	NJM2043DD.....	18-38
		CXK1202S.....	18-27	NJM2043M-D.....	18-38
		CXK5816M-12L.....	18-28	NJM2903D.....	18-38
BU18430A.....	18-5			NJM2903M.....	18-38
BU18440A.....	18-6	HA12411.....	18-29	NJM4556D.....	18-38
BX1098.....	18-6	HD14538BFP.....	18-29	NJM4558D.....	18-38
BX1152.....	18-6	HD14584BFP.....	18-29	NJM4558D-FA.....	18-38
BX1343A.....	18-6			NJM4558M.....	18-38
BX1460.....	18-6	M50747-XXXSP.....	18-30	NJM4560DD.....	18-38
BX1461.....	18-7	M51958BL.....	18-30	NJM4560M.....	18-38
BX1464.....	18-7	M5215L.....	18-30	NJM4562D-D.....	18-38
BX343.....	18-7	M5236L.....	18-30	NJM5532M.....	18-39
BX365A.....	18-7	M54516P.....	18-30	NJM78??A.....	18-39
BX381.....	18-7	M54523P.....	18-31	NJM78L??A.....	18-39
BX3914.....	18-7	M54529AP.....	18-31	NJM78M??A.....	18-39
BX3915A.....	18-7	M54532P.....	18-31	NJM79L??A.....	18-39
		MB4002PF.....	18-31	NJM79M??A.....	18-39
CF77074NT.....	18-8	MB40778P.....	18-31		
CX20061.....	18-8	MB88201H-539N.....	18-31	PA0009.....	18-40
CX20099.....	18-8	MB88303.....	18-32		
CX20111.....	18-8	MB88515B-280M.....	18-33	S-802??.....	18-40
CX20158.....	18-9	MB88525.....	18-34	S-805??.....	18-40
CX20162.....	18-9	MBM2212-25P.....	18-35	SBX4001-01.....	18-40
CX22013.....	18-9	MBM2764-25.....	18-35	SBX4002-01.....	18-7
CX22017.....	18-9	MBM27C256-25.....	18-35	SN16913P.....	18-41
CX23028.....	18-10	MC10198L.....	18-36	SN74HC08NS.....	18-41
CX23065.....	18-10	MC10H113M.....	18-36	SN74HC161NS.....	18-41
CX23084.....	18-11	MC10H116M.....	18-36	SN74HC193NS.....	18-42
CX770.....	18-11	MC10H124M.....	18-36	SN74HC240NS.....	18-42
CX7907A.....	18-12	MC10H125M.....	18-36	SN74HC245NS.....	18-42
CX7912A.....	18-14	MC10H131M.....	18-36	SN74HC32NS.....	18-42
CX7913A.....	18-16			SN74HC368NS.....	18-42
CX7930A.....	18-18	MC14046BCP.....	18-36	SN74HC373.....	18-43
CX7993A.....	18-19	MC14538BCP.....	18-29	SN74HC373NS.....	18-43
CX7998.....	18-20	MC14557BF.....	18-37	SN74HC4024NS.....	18-43
CX877.....	18-20	MC34051P.....	18-37	SN74HC4040NS.....	18-43
CXA1020P.....	18-20	MC74HC11F.....	18-37	SN74LS00NS.....	18-43
CXA1039M.....	18-21	MC74HC58N.....	18-37	SN74LS04NS.....	18-44
CXA1040M.....	18-21			SN74LS06N.....	18-43

# EMICONDUCTOR INDEX

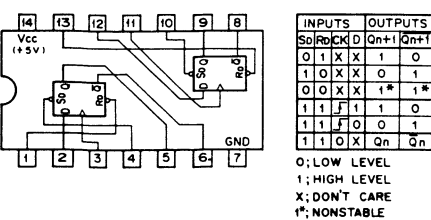
IC	PAGE	IC	PAGE	IC	PAGE
SN74LS06NS.....	18-43	TC74HC02P.....	18-49	uPC1663G.....	18-56
SN74LS11NS.....	18-43	TC74HC04F.....	18-49	uPC311G2.....	18-56
SN74LS123N.....	18-44	TC74HC04P.....	18-49	uPC319G2.....	18-56
SN74LS123NS.....	18-44	TC74HC08F.....	18-41	uPC324C.....	18-56
SN74LS163ANS.....	18-44	TC74HC08P.....	18-41	uPC339C.....	18-56
SN74LS164NS.....	18-44	TC74HC11P.....	18-37	uPC339G2.....	18-56
SN74LS221NS.....	18-44	TC74HC123F.....	18-50	uPC393G2.....	18-38
SN74LS244N.....	18-44	TC74HC138F.....	18-50	uPC4558C.....	18-57
SN74LS245N.....	18-45	TC74HC138P.....	18-50	uPC648C.....	18-57
SN74LS683NS.....	18-45	TC74HC139F.....	18-50	uPC79??H.....	18-57
SN74LS697N.....	18-45	TC74HC139P.....	18-50	uPD4013BC.....	18-57
SN74LS74ANS.....	18-45	TC74HC14F.....	18-50	uPD71054G.....	18-57
SN75107AN.....	18-45	TC74HC14P.....	18-50	uPD74HC02C.....	18-49
		TC74HC157P.....	18-50	uPD78310CW.....	18-58
TA7267P.....	18-46	TC74HC160F.....	18-50	uPD78312CW.....	18-59
TA7357AP.....	18-46	TC74HC163F.....	18-51		
TA78L??AP.....	18-46	TC74HC174F.....	18-51		
TC4001BF.....	18-46	TC74HC175F.....	18-51		
TC4001BP.....	18-46	TC74HC221F.....	18-51		
TC4009UBP.....	18-46	TC74HC240P.....	18-51		
TC4011BF.....	18-46	TC74HC244F.....	18-51		
TC4016BP.....	18-47	TC74HC244P.....	18-51		
TC4023BF.....	18-47	TC74HC245P.....	18-42		
TC4024BF.....	18-47	TC74HC27F.....	18-52		
TC4028BF.....	18-47	TC74HC32F.....	18-42		
TC4030BF.....	18-47	TC74HC32P.....	18-42		
TC4030BP.....	18-47	TC74HC4049F.....	18-52		
TC4050BF.....	18-47	TC74HC4050F.....	18-52		
TC4050BP.....	18-47	TC74HC4050P.....	18-52		
TC4051BF.....	18-48	TC74HC4538P.....	18-52		
TC4052BF.....	18-48	TC74HC595P.....	18-53		
TC4053BF.....	18-48	TC74HC597P.....	18-53		
TC4053BP.....	18-48	TC74HC74F.....	18-53		
TC4066BF.....	18-48	TC74HC86F.....	18-53		
TC4069UBF.....	18-48	TC74HCU04F.....	18-49		
TC4069UBP.....	18-48	TC74HCU04P.....	18-49		
TC4071BF.....	18-48	TD62901P.....	18-53		
TC4071BP.....	18-48				
TC4075BF.....	18-48	TL082CP.....	18-53		
TC4081BF.....	18-48	TL082CPS.....	18-53		
TC40H000F.....	18-49	TL084CN.....	18-53		
TC40H032F.....	18-49	TL084CNS.....	18-53		
TC40H139F.....	18-49	TL431CLPB.....	18-53		
TC40H163F.....	18-49	TL601CPS.....	18-54		
TC4538BF.....	18-29	TL607CPS.....	18-54		
TC4538BP.....	18-29	TLC27M2CPS.....	18-54		
TC504013BF.....	18-49	TLC548CP.....	18-54		
TC74HC00F.....	18-49	TMPZ84C011AF .....	18-55		
TC74HC00P.....	18-49	TMPZ84C011AF-6....	18-55		
TC74HC02F.....	18-49	TMPZ84C30AP-6....	18-56		

Transistor	PAGE	Transistor	PAGE	Diode	PAGE
2SA1048.....	18-60	DTA114EK.....	18-61	10E-2.....	18-62
2SA1115A.....	18-60	DTA114TK.....	18-61	1S2076.....	18-62
2SA1122.....	18-60	DTA124EK.....	18-61	1S2835.....	18-62
2SA1141.....	18-60	DTA124ES.....	18-61	1S2837.....	18-62
2SA1156.....	18-60	DTA124XS.....	18-61	1SS119.....	18-62
2SA1162.....	18-60	DTA144EF.....	18-61	1SS123.....	18-62
2SA1175.....	18-60	DTA144EK.....	18-61	1SS97.....	18-62
2SA1226.....	18-60			1SS99.....	18-62
2SA473.....	18-60	DTB123EK.....	18-61	ERB44-??.....	18-62
2SA733.....	18-60			FC51M.....	18-62
2SA768.....	18-60	DTC124EK.....	18-61	FC54M.....	18-62
2SA812.....	18-60	DTC124ES.....	18-61	GL-5HD5.....	18-62
2SA844.....	18-60	DTC124XS.....	18-61	GP-1L52.....	18-62
2SA911.....	18-60	DTC144EF.....	18-61	GP-1L53.....	18-62
		DTC144EK.....	18-61	LB-402VK.....	18-62
2SB1115A.....	18-60	DTC144WK.....	18-61	LN25RP.....	18-62
2SB553.....	18-60			HZ?A?L.....	18-62
2SB649A.....	18-60	TX429M.....	18-61	HZ?ALL.....	18-62
2SB733.....	18-60			HZ?C?L.....	18-62
2SB734.....	18-60			RD??MB.....	18-62
2SB822.....	18-60			TLC255.....	18-62
				TLP801A.....	18-62
2SC1173.....	18-60			TLUG154.....	18-62
2SC1310.....	18-60			TLUR144.....	18-62
2SC1623.....	18-60			TLY255.....	18-62
2SC1762.....	18-60				
2SC2223.....	18-60				
2SC2259.....	18-60				
2SC2458.....	18-60				
2SC2603.....	18-60				
2SC2654.....	18-60				
2SC2712.....	18-60				
2SC2754.....	18-60				
2SC2757.....	18-60				
2SC2785.....	18-60				
2SC2878.....	18-60				
2SC2901.....	18-60				
2SC3012.....	18-60				
2SC3064.....	18-60				
2SC3326N.....	18-60				
2SC403SP.....	18-60				
2SC634SP.....	18-60				
2SD1055.....	18-60				
2SD1615A.....	18-60				
2SD669A.....	18-60				
2SD773.....	18-60				
2SD774.....	18-60				
2SD999.....	18-61				
2SK209.....	18-61				
2SK389.....	18-61				
2SK94.....	18-61				

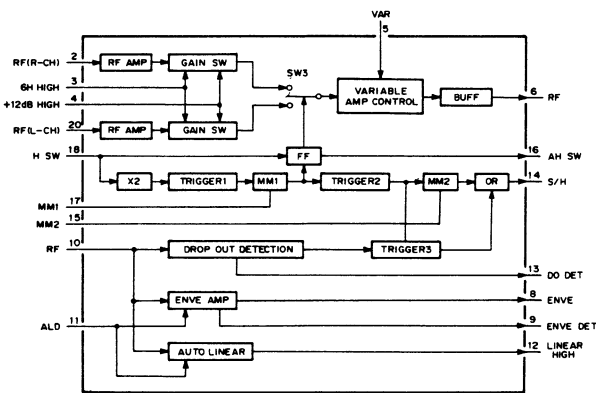
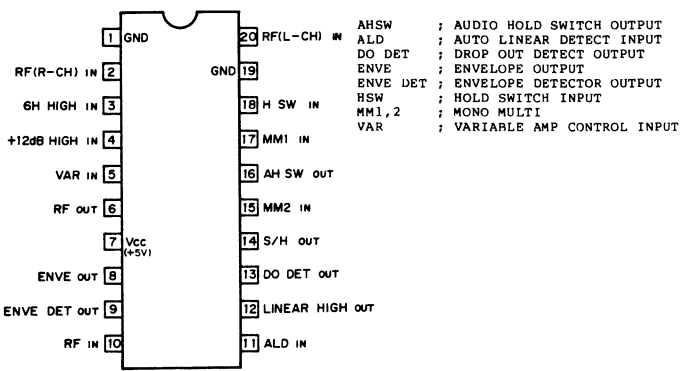
74F04PC (FSC)  
SN74LS04NS (TI) FLAT PACKAGE  
TTL INVERTER  
— TOP VIEW —



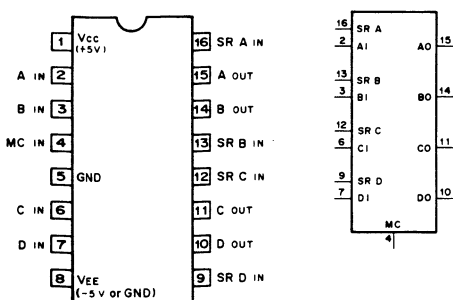
74F74PC (FSC)  
SN74LS74ANS (TI) FLAT PACKAGE  
TTL D-TYPE FLIP FLOP WITH DIRECT SET/RESET  
— TOP VIEW —



AN3920K (MATSUSHITA)  
VTR FM AUDIO RF AMP  
— TOP VIEW —

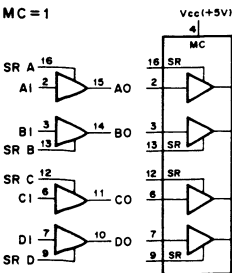


AM26LS30PC (ADVANCED MICRO DEVICES)  
LINE DRIVER  
— TOP VIEW —



MC: MODE CONTROL  
SR: SLEW RATE CONTROL

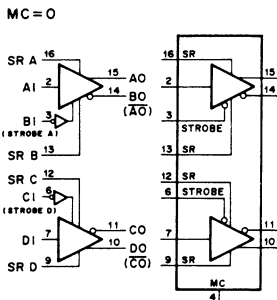
MC = 1



MC	A TO D	A TO D
0	0	0
1	1	1

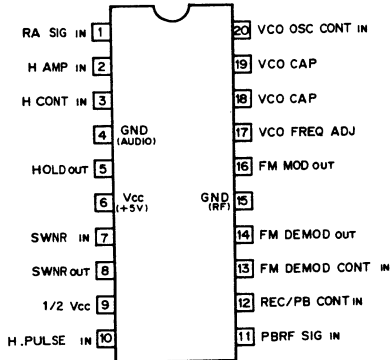
0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE  
HI-Z: HIGH IMPEDANCE

MC = 0

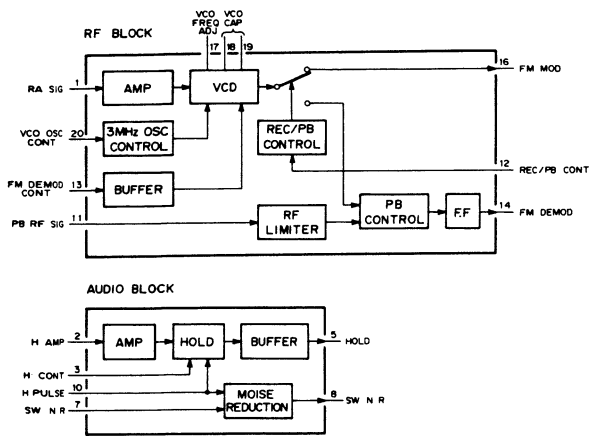


MC	STROBE	A & D	A & D	B & C
0	0	0	0	1
0	0	1	1	0
0	1	X	HI-Z	HI-Z

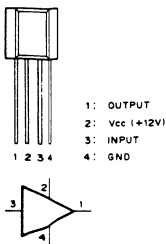
AN3922NK (MATSUSHITA)  
VTR, FM AUDIO MODULATOR AND DEMODULATOR  
— TOP VIEW —



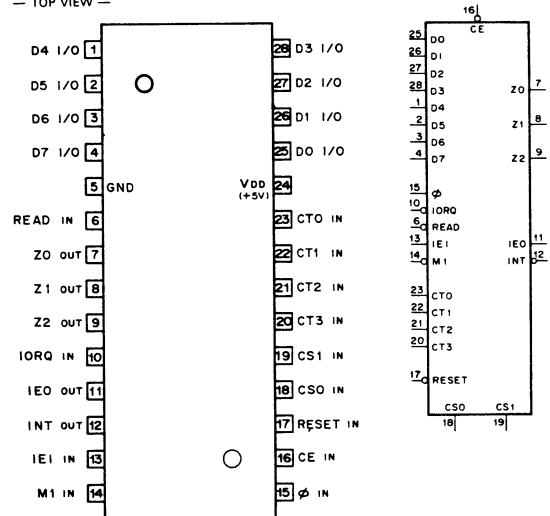
FM DEMOD ; FM DEMODULATION OUTPUT  
FM DEMOD CONT ; FM DEMODULATION CONTROL INPUT  
FM MOD ; FM MODULATION OUTPUT  
H AMP ; HOLD AMP INPUT  
H CONT ; HOLD CONTROL INPUT  
H PULSE ; HOLD PULSE INPUT  
PBRF SIG ; PB RF SIGNAL INPUT  
RA SIG ; REC AUDIO SIGNAL INPUT  
REC/PB CONT ; REC/PB CONTROL INPUT  
SWNR ; SWITCH NOISE REDUCTION INPUT/OUTPUT  
VCO CAP ; VCO CAPACITOR  
VCO FREQ ADJ ; VCO FREQUENCY ADJUSTMENT  
VCO OSC CONT ; VCO OSCILLATION CONTROL INPUT



AN607P (MATSUSHITA)  
AN608P (MATSUSHITA)  
WIDE BAND AMPLIFIER  
— PRINTED SIDE VIEW —



BU18430A (ROHM)  
N-MOS COUNTER TIMER CIRCUIT  
— TOP VIEW —

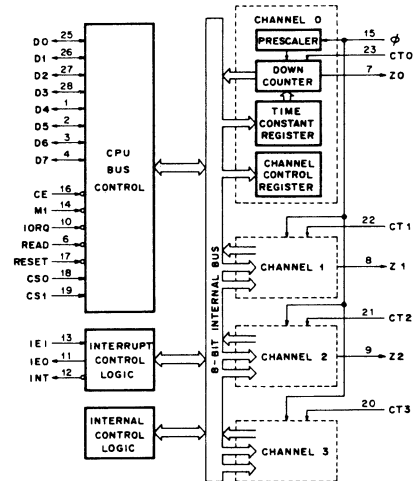


φ ; SYSTEM CLOCK  
CE ; CHIP ENABLE  
CS0, CS1 ; CHANNEL SELECT  
CT0-CT3 ; EXTERNAL CLOCK/TIMER TRIGGER  
D0-D7 ; 3-STATE DATA INPUT/OUTPUT  
IE1 ; INTERRUPT ENABLE INPUT  
IE0 ; INTERRUPT ENABLE OUTPUT  
INT ; INTERRUPT REQUEST (OPEN DRAIN)  
IORQ ; I/O REQUEST  
M1 ; MACHINE CYCLE 1  
READ ; READ CYCLE STATUS  
Z0-Z2 ; ZERO COUNT/TIME OUT

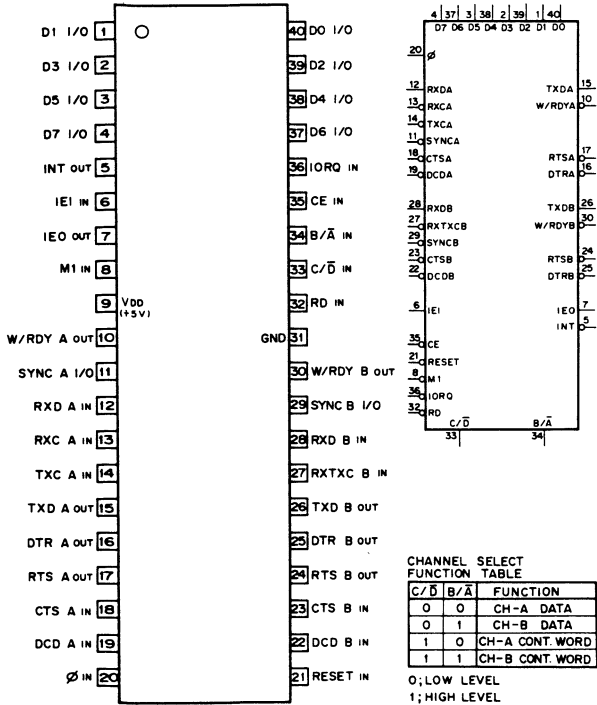
CHANNEL SELECT FUNCTION

CS1	CS0	SELECTED CHANNEL
0	0	0
0	1	1
1	0	2
1	1	3

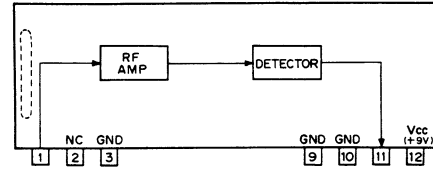
0; LOW LEVEL  
1; HIGH LEVEL



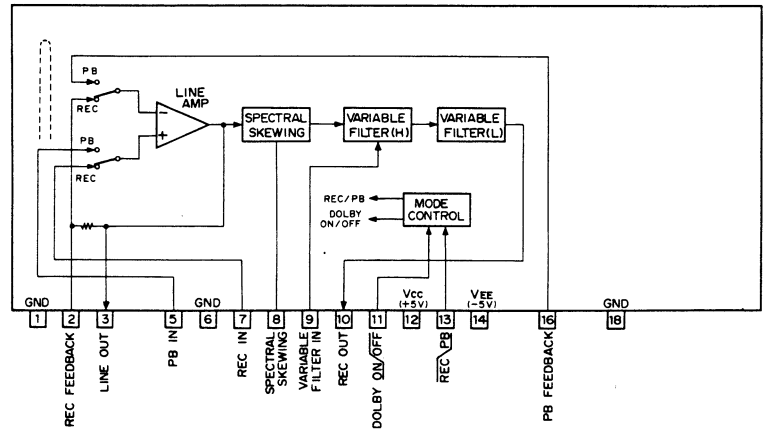
BU18440A (ROHM)  
N-MOS 2-CHANNEL SERIAL INPUT/OUTPUT  
FOR MICROCOMPUTER SYSTEM  
— TOP VIEW —



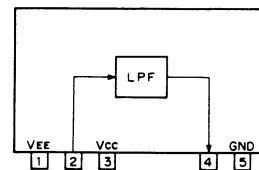
BX1098 (SONY)  
RF METER DRIVER  
— REAR VIEW —



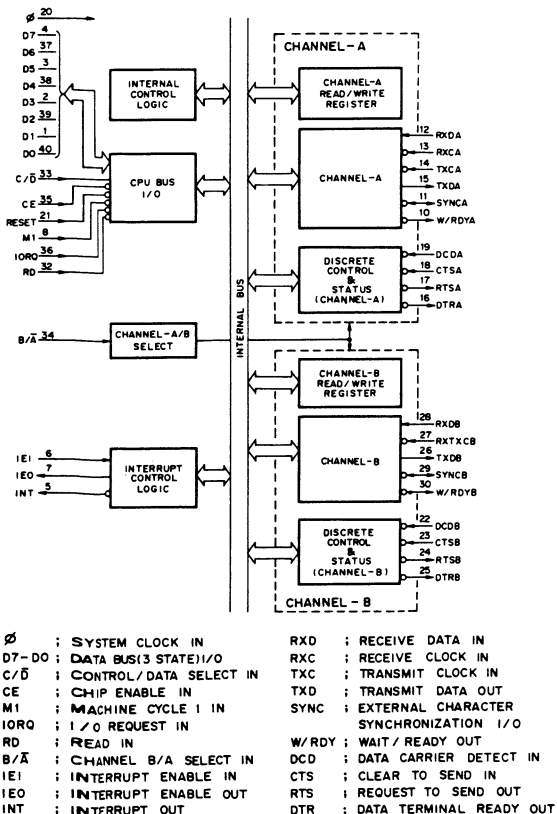
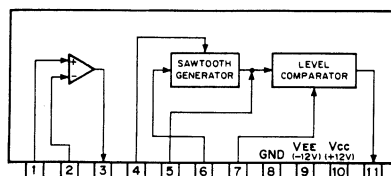
BX1152 (SONY)  
DOLBY (C TYPE) NOISE REDUCTION SYSTEM  
— REAR VIEW —



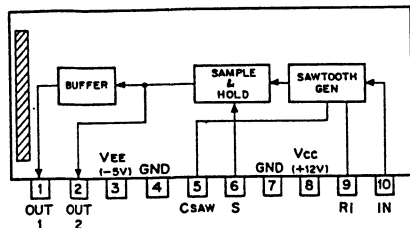
BX-1343A (SONY)  
ACTIVE LOW-PASS FILTER  
— IMPRINTED SIDE VIEW —



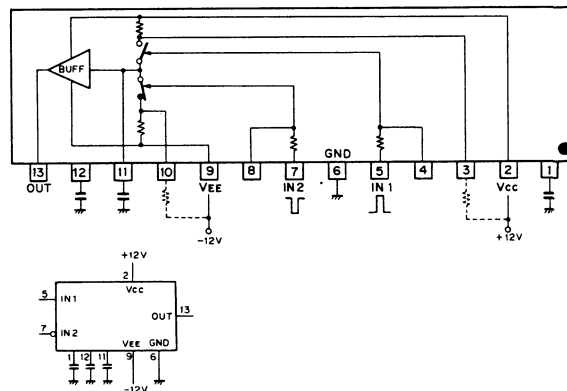
BX1460 (SONY)  
PHASE SHIFTER  
— PRINTED SIDE VIEW —



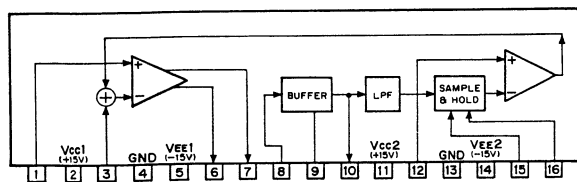
**BX1461 (SONY)**  
PHASE DETECTOR  
— PRINTED SIDE —



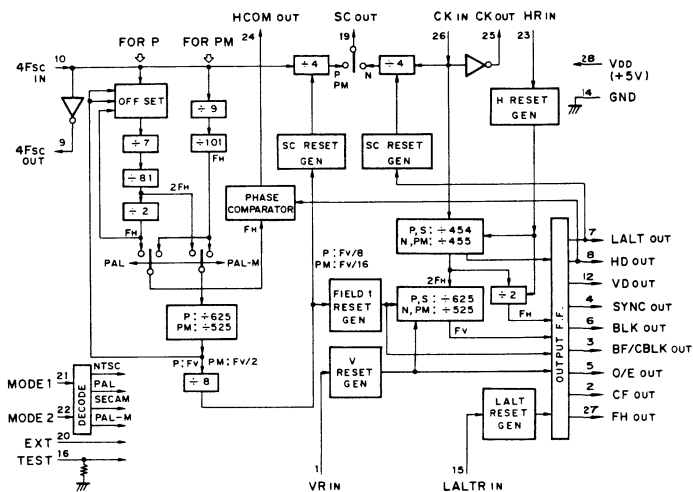
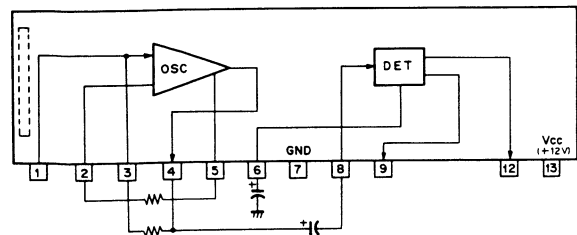
**BX381 (SONY)**  
PHASE COMPARATOR  
— SIDE VIEW —



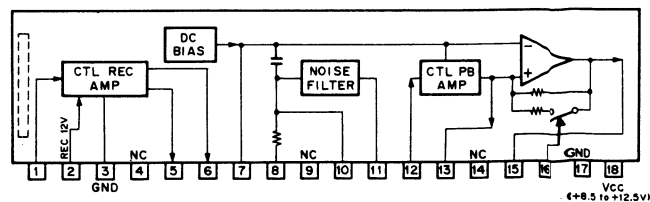
**BX1464 (SONY)**  
SBX4002-01 (NEC)  
CLAMP AND BUFFER  
— PRINTED SIDE VIEW —



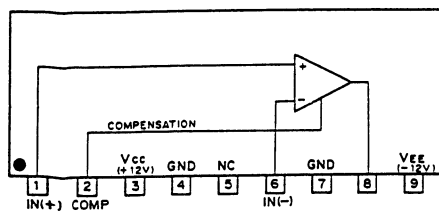
**BX343 (SONY)**  
OSCILLATOR/DETECTOR  
— REAR VIEW —



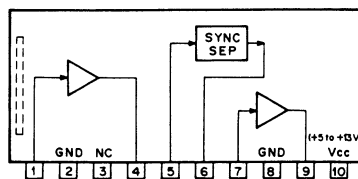
**BX3914 (SONY)**  
CTL REC/PB AMPLIFIER  
— PRINTED SIDE —



**BX365A (SONY)**  
VIDEO AMPLIFIER  
— SIDE VIEW —

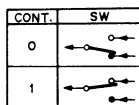
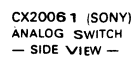
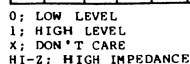


**BX3915A (SONY)**  
SYNC SEPARATOR  
— PRINTED SIDE —

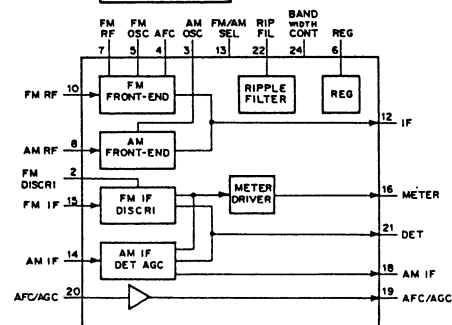
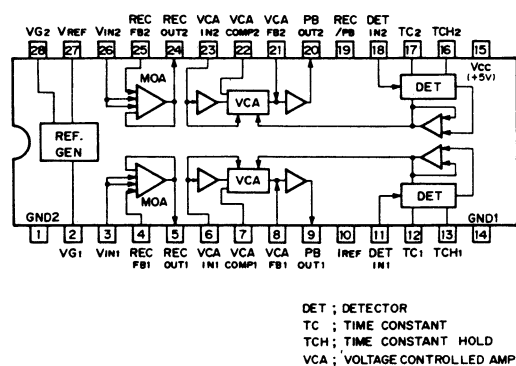




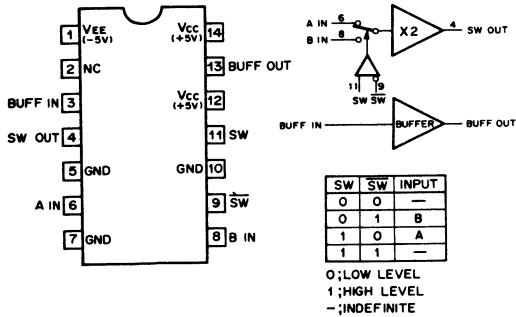
C



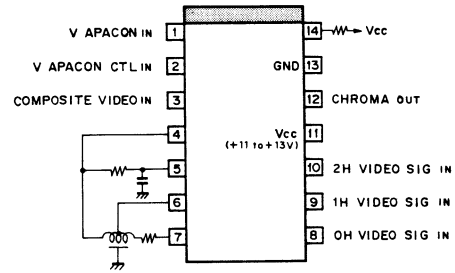
0; LOW LEVEL  
1; HIGH LEVEL



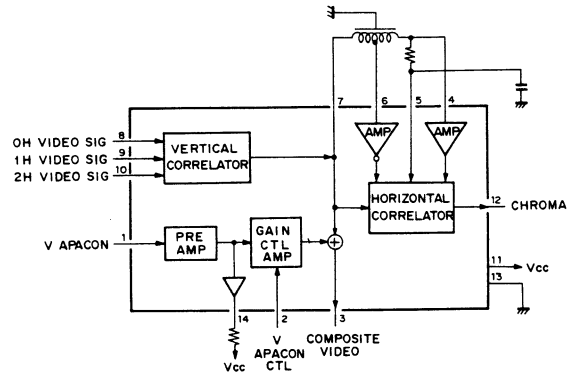
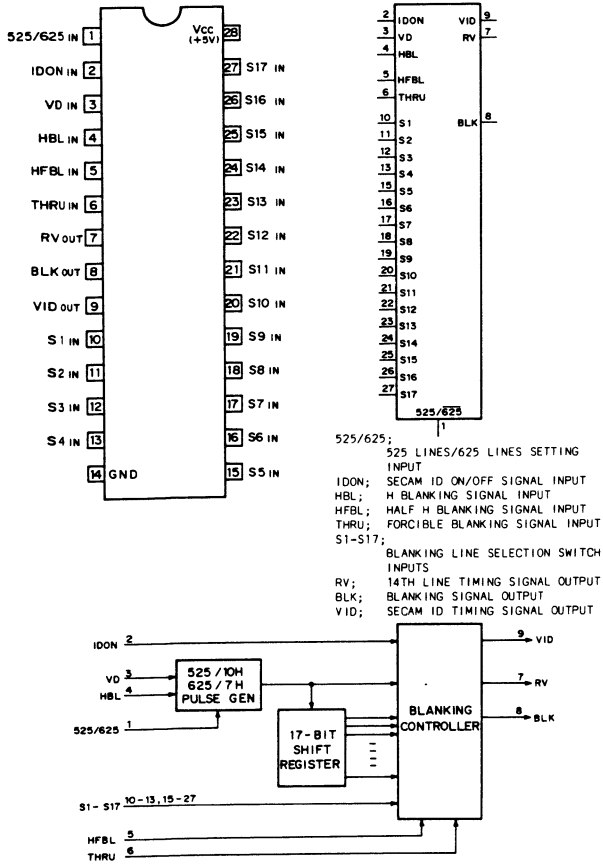
CX20158 (SONY)  
VIDEO SWITCHER AND BUFFER  
— TOP VIEW —



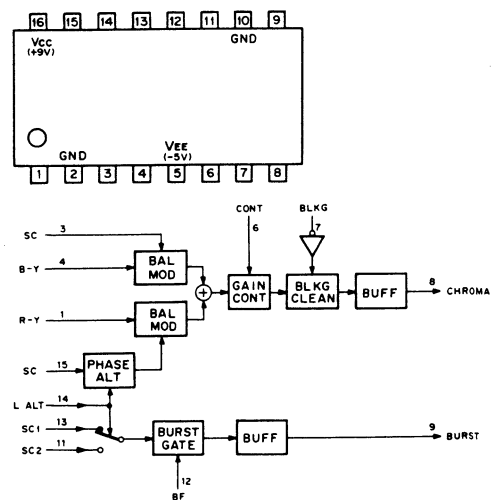
CX22013 (SONY)  
DYNAMIC COMB FILTER  
— TOP VIEW —



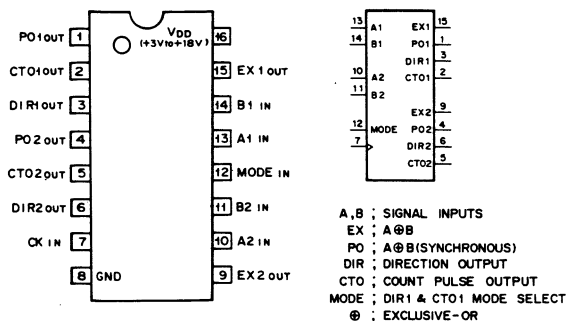
CX20162 (SONY)  
BIPOLAR/TTL VERTICAL BLANKING WIDTH CONTROLLER  
— TOP VIEW —



CX22017 (SONY)  
VIDEO SIGNAL PROCESSOR  
— TOP VIEW —



CX23028 (SONY)  
C-MOS SYNCHRONOUS ROTATIONAL DIRECTION DETECTOR  
— TOP VIEW —

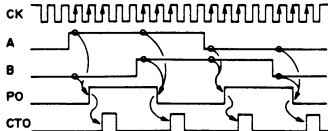


MODE="1"

DIRECTION OUTPUT "DIR"

INPUTS	DIR
$A \angle B$	1
$B \angle A$	0

TIMING CHART "CTO"



MODE="0"

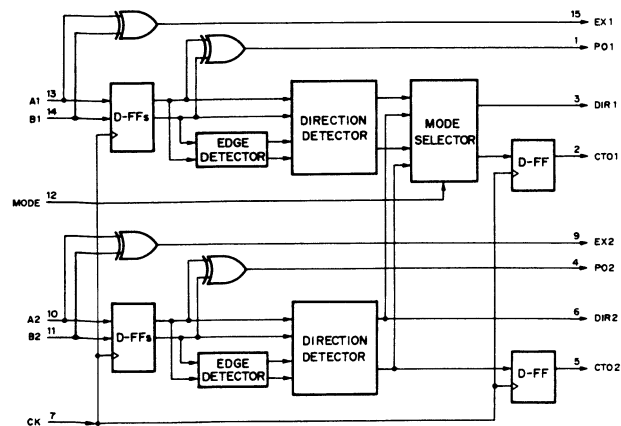
DIRECTION OUTPUT "DIR"

INPUTS		DIR 1	DIR 2
CH1	CH2		
$A1 \angle B1$	$A2 \angle B2$	1	
$B1 \angle A1$	$A2 \angle B2$	OUTPUT "1" AND "0" ALTERNATELY	THE SAME FUNCTION OF MODE "1"
$A1 \angle B1$	$B2 \angle A2$		
$B1 \angle A1$	$B2 \angle A2$	0	

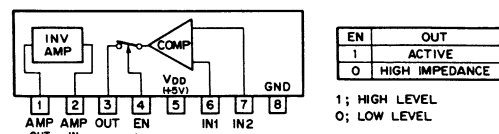
CTO 1; CTO1 with MODE "0" = CTO1 with MODE "1" + CTO 2  
CTO 2; THE SAME FUNCTION OF MODE "1"

1; HIGH LEVEL  
0; LOW LEVEL

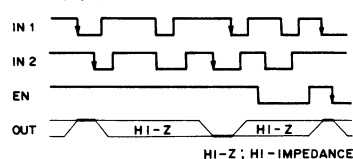
$A \angle B$ ; THE PHASE OF SIGNAL A IS IN ADVANCE FOR THE PHASE OF B.



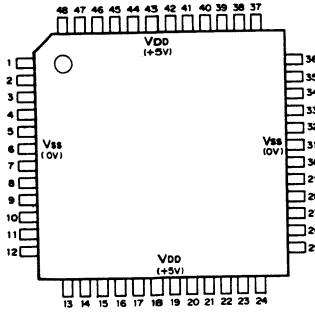
CX23065 (SONY)  
N-MOS PHASE COMPARATOR WITH INVERSION AMPLIFIER  
— PRINTED SIDE VIEW —



TIMMING CHART

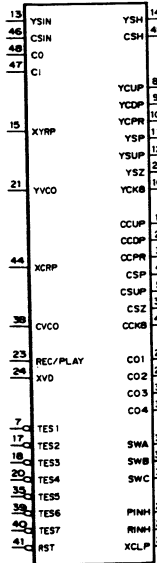


CX23084 (SONY) FLAT PACKAGE  
C-MOS TIMING GENERATOR/CCD CLOCK GENERATOR  
— TOP VIEW —

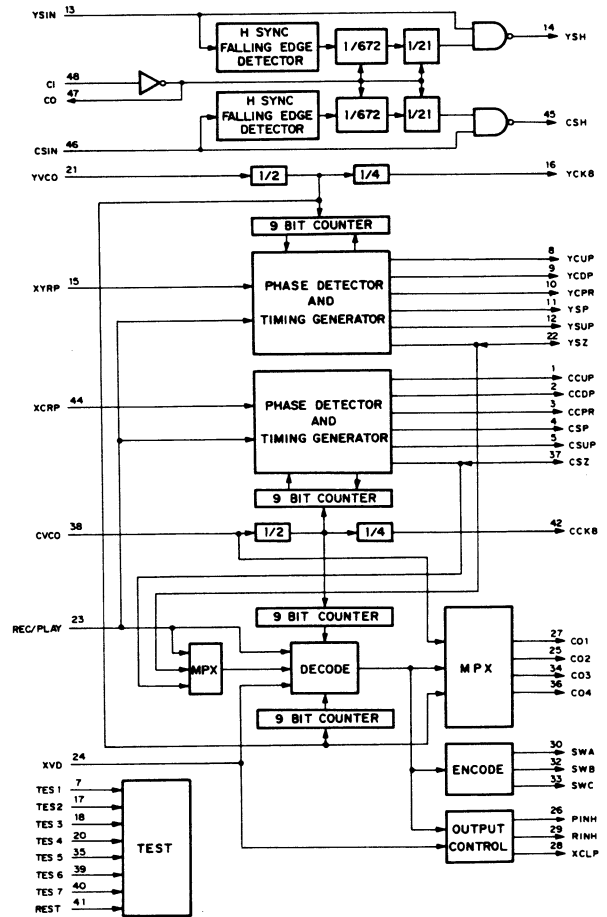


PIN ASSIGNMENT

PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL
1			CCUP	13			YSIN	25			CO2	37			CSZ
2			CCDP	14			YSH	26			PINH	38			CVCO
3			CCPR	15			XYRP	27			CO1K	39			YES 6
4			CSP	16			YCKB	28			XCLP	40			YES 7
5			CSUP	17			YES 2	29			RINH	41			RST
6			VSS	18			YES 3	30			SWA	42			CCKB
7			YES 1	19			VDD	31			VSS	43			VDD
8			YCUP	20			YES 4	32			SWB	44			XCRP
9			YCDP	21			YVCO	33			SWC	45			CSH
10			YCPR	22			YSZ	34			CO3	46			CSIN
11			YSP	23			REC/PLAY	35			YES 5	47			CO
12			YSUP	24			XVD	36			CO4	48			CI

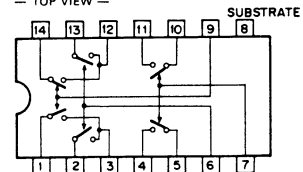


CCDP: CHROMA CHARGE DOWN PULSE OUT  
CCKB: CHROMA VCO 1/8 COUNT DOWN OUT  
CCPR: CHROMA CHARGE PUMP RESET PULSE OUT  
CCUP: CHROMA CHARGE UP PULSE OUT  
CI: CLOCK IN(SELECTED H)  
CO: CLOCK OUT(SELECTED H)  
CO1-4: CLOCK OUT(CCD DRIVE)  
CSH: CHROMA SELECTED H OUT  
CSIN: CHROMA HORIZONTAL SYNC IN  
CSP: CHROMA SAMPLING PULSE OUT  
CSUP: CHROMA SPEED UP PULSE OUT  
CSZ: CHROMA SYNC ZERO OUT(PLAYBACK)  
CVCO: CHROMA VCO CLOCK IN  
PINH: PLAY INHIBIT OUT  
REC/PLAY: REC/PLAY SELECT IN  
RST: RESET IN  
RINH: REC INHIBIT OUT  
SWA, SWB, SWC: CCD READ DATA SELECT A, B, C OUT  
TES1-7: TEST1-7 IN  
XCLP: CHROMA CLAMP OUT  
XCRP: CHROMA VCO RESET PULSE IN  
XYRP: Y VCO RESET PULSE  
XVD: VD IN  
YCDP: Y CHARGE DOWN PULSE OUT  
YCKB: Y VCO 1/8 COUNT DOWN OUT  
YCPR: Y CHARGE PUMP RESET PULSE OUT  
YCUP: Y CHARGE UP PULSE OUT  
YSH: Y SELECTED H OUT  
YSIN: Y HORIZONTAL SYNC IN  
YSP: Y SAMPLING PULSE OUT  
YSUP: Y SPEED UP PULSE OUT  
YSZ: Y SYNC ZERO(RECORD)  
YVCO: Y VCO CLOCK IN

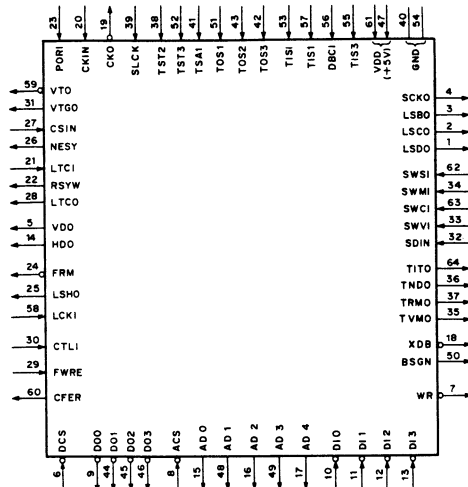
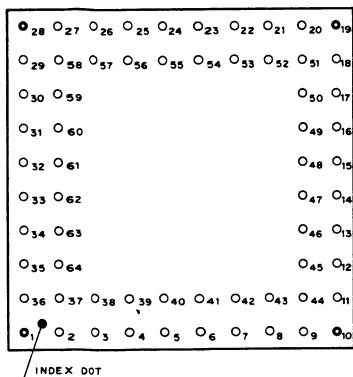


CX770 (SONY)

— TOP VIEW —



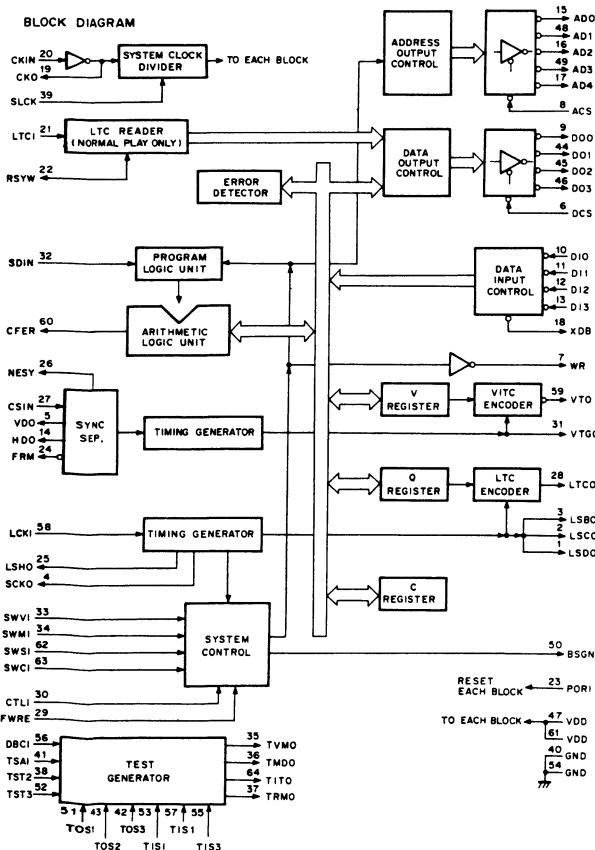
CX7907A (SONY)  
C-MOS TIME CODE GENERATOR  
— TOP VIEW —



## PIN ASSIGNMENT

Pin No.	IN	OUT	SYMBOL	Pin No.	IN	OUT	SYMBOL	Pin No.	IN	OUT	SYMBOL	Pin No.	IN	OUT	SYMBOL
1			LSDO	17			AD4	33			SWVI	49			AD3
2			LSCO	18			XDB	34			SWMI	50			BSGN
3			LSBO	19			CKO	35			TVMO	51			TOS1
4			SKO	20			CKIN	36			TVMO	52			TST3
5			VDO	21			LTCI	37			TRMO	53			TISI
6			DCS	22			RSYW	38			TST2	54			GND
7			WR	23			PORI	39			SLCK	55			TIS3
8			ACS	24			FRM	40			GND	56			DBCI
9			DO0	25			LSHO	41			TSAI	57			TIS1
10			DI0	26			NESY	42			TOS3	58			LCKI
11			DI1	27			CSIN	43			TOS2	59			VTO
12			DI2	28			LTCO	44			DO1	60			CFER
13			DI3	29			FWRE	45			DO2	61			VDD(+5V)
14			HDO	30			CTL1	46			DO3	62			SWSI
15			AD0	31			VTGO	47			VDD(+5V)	63			SWCI
16			AD2	32			SDIN	48			AD1	64			TITO

## BLOCK DIAGRAM

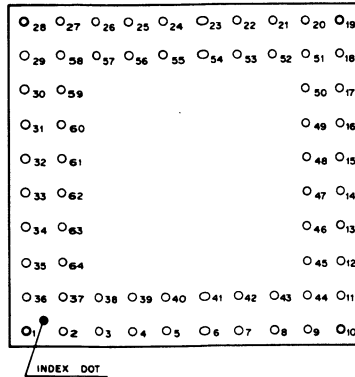


## FUNCTIONAL PIN DEFINITION

Pin No.	SYMBOL	DESCRIPTION
8	ACS	ADDRESS LINE CHIP SELECT INPUT
15	AD0	ADDRESS DATA OUTPUT
48	AD1	ADDRESS DATA OUTPUT
16	AD2	ADDRESS DATA OUTPUT
49	AD3	ADDRESS DATA OUTPUT
17	AD4	ADDRESS DATA OUTPUT
50	BSGN	BUSY GENERATOR OUTPUT
60	CFER	COLOR FRAME ERROR FLAG OUTPUT
20	CKIN	SYSTEM CLOCK INPUT
19	CKO	CLOCK OUTPUT
27	CSIN	COMPOSITE SYNC INPUT
30	CTL1	CTL(TIMER) SIGNAL INPUT (L)
6	DCS	DATA LINE CHIP SELECT INPUT (NEGATIVE-LOGIC)
10	DI0	DATA BUS INPUT (NEGATIVE-LOGIC)
11	DI1	DATA BUS INPUT (NEGATIVE-LOGIC)
12	DI2	DATA BUS INPUT (NEGATIVE-LOGIC)
13	DI3	DATA BUS INPUT (NEGATIVE-LOGIC)
9	DO0	DATA BUS OUTPUT (NEGATIVE-LOGIC)
44	DO1	DATA BUS OUTPUT (NEGATIVE-LOGIC)
45	DO2	DATA BUS OUTPUT (NEGATIVE-LOGIC)
46	DO3	DATA BUS OUTPUT (NEGATIVE-LOGIC)
24	FRM	FRAME SIGNAL OUTPUT (NEGATIVE-LOGIC)
29	FWRE	CTL DIRECTION INPUT
14	HDO	HORIZONTAL SYNC DRIVE OUTPUT
58	LCKI	LTC CLOCK INPUT (SMPT 9.6kHz/EBU 8kHz)
3	LSBO	LTC SYNCHRONOUS SIGNAL B OUTPUT
33	LSCO	LTC SYNCHRONOUS SIGNAL C OUTPUT
2	LSDO	LTC SYNCHRONOUS SIGNAL D OUTPUT
25	LSHO	LTC SYNCHRONOUS SIGNAL H OUTPUT
21	LTCI	LTC INPUT
21	LTCO	LTC SIGNAL OUTPUT
28	NESY	LOST-SYNC FLAG OUTPUT
23	PORI	POWER ON RESET INPUT
22	RSYW	READ SYNC WORD OUTPUT
4	SKO	SWITCHES SIGNAL IN CLOCK OUTPUT
32	SDIN	SERIAL DATA INPUT
39	SLCK	SELECT CLOCK INPUT
63	SWCI	SWITCHES SIGNAL C INPUT
34	SWMI	SWITCHES SIGNAL M INPUT
62	SWSI	SWITCHES SIGNAL S INPUT
33	SWVI	SWITCHES SIGNAL V INPUT
5	VDO	VERTICAL SYNC DRIVE OUTPUT
31	VTGO	VITC GATE SIGNAL OUTPUT
59	VTO	VITC SIGNAL OUTPUT (NEGATIVE-LOGIC)
7	WR	WRITE SIGNAL OUTPUT (NEGATIVE-LOGIC)
18	XDB	EXTERNAL DATA BUS IN FLAG OUTPUT (NEGATIVE-LOGIC)
47	VDD	POWER LINE (+5V)
40	GND	GND LINE
54	GND	GND LINE
56	DBCI	TEST INPUT (TO BE CONNECTED WITH GND)
57	TIS1	TEST INPUT (TO BE CONNECTED WITH GND)
55	TIS3	TEST INPUT (TO BE CONNECTED WITH GND)
51	TOS1	TEST INPUT (TO BE CONNECTED WITH GND)
43	TOS2	TEST INPUT (TO BE CONNECTED WITH GND)
42	TOS3	TEST INPUT (TO BE CONNECTED WITH GND)
41	TSAI	TEST INPUT (TO BE CONNECTED WITH GND)
38	TST2	TEST INPUT (TO BE CONNECTED WITH GND)
52	TST3	TEST INPUT (TO BE CONNECTED WITH GND)
64	TITO	TEST OUTPUT (TO BE LEFT OPEN)
36	TRMO	TEST OUTPUT (TO BE LEFT OPEN)
37	TVMO	TEST OUTPUT (TO BE LEFT OPEN)

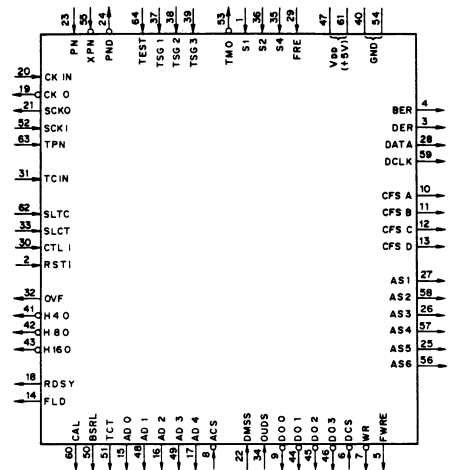


CX7912A (SONY)  
C-MOS TIME CODE READER  
— TOP VIEW —



PIN ASSIGNMENT

PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL
1	○		SI	17	○		AD 4	33	○		SLCT	49	○		AD 3
2	○		RSTI	18	○		RDSY	34	○		ODDS	50	○		BSRL
3	○		DER	19	○		CK 0	35	○		S4	51	○		TCT
4	○		BER	20	○		CK IN	36	○		S2	52	○		SCKI
5	○		FWRE	21	○		SKO	37	○		TSG 1	53	○		TMO
6	○		DCS	22	○		DMSS	38	○		TSG 2	54	○		GND
7	○		WR	23	○		PN	39	○		TSG 3	55	○		XPN
8	○		ACS	24	○		PND	40	○		GND	56	○		AS 6
9	○		DO 0	25	○		AS 5	41	○		H 4 0	57	○		AS 4
10	○		CFS A	26	○		AS 3	42	○		H 8 0	58	○		AS 2
11	○		CFS B	27	○		AS 1	43	○		H 16 0	59	○		DCLK
12	○		CFS C	28	○		DATA	44	○		DO 1	60	○		CAL
13	○		CFS D	29	○		FRE	45	○		DO 2	61	○		VDDH5V
14	○		FLD	30	○		CTL 1	46	○		DO 3	62	○		SLTC
15	○		AD 0	31	○		TC IN	47	○		VDDH5V	63	○		TPN
16	○		AD 2	32	○		OVF	48	○		AD 1	64	○		TEST



MODE SELECT

SLCT	SLTC	MODE
0	0	AUTO
0	1	TIME CODE
1	0	CTL
1	1	AUTO

CTL COUNT

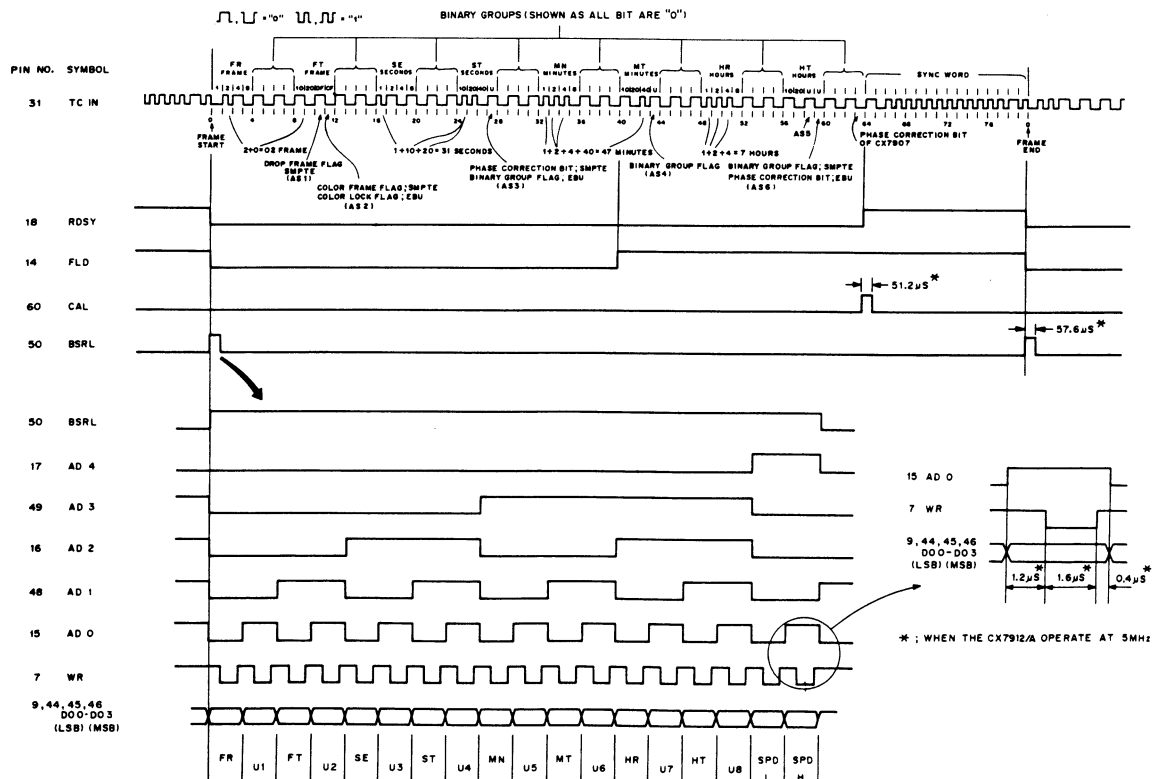
FRE	RSTI	COUNT
0	X	DOWN COUNT
1	X	UP COUNT
X	L	RESET

SIGNAL FORMAT SELECT

S4	S2	S1	FORMAT	FRAME
0	0	0	FILM	24
0	0	1		
0	1	0	NOT ALLOWED	
0	1	1		
1	0	0	PAL, SECAM	25
1	0	1	NOT ALLOWED	
1	1	0	NTSC (NON DROP FRAME)	30
1	1	1	NTSC (DROP FRAME)	30

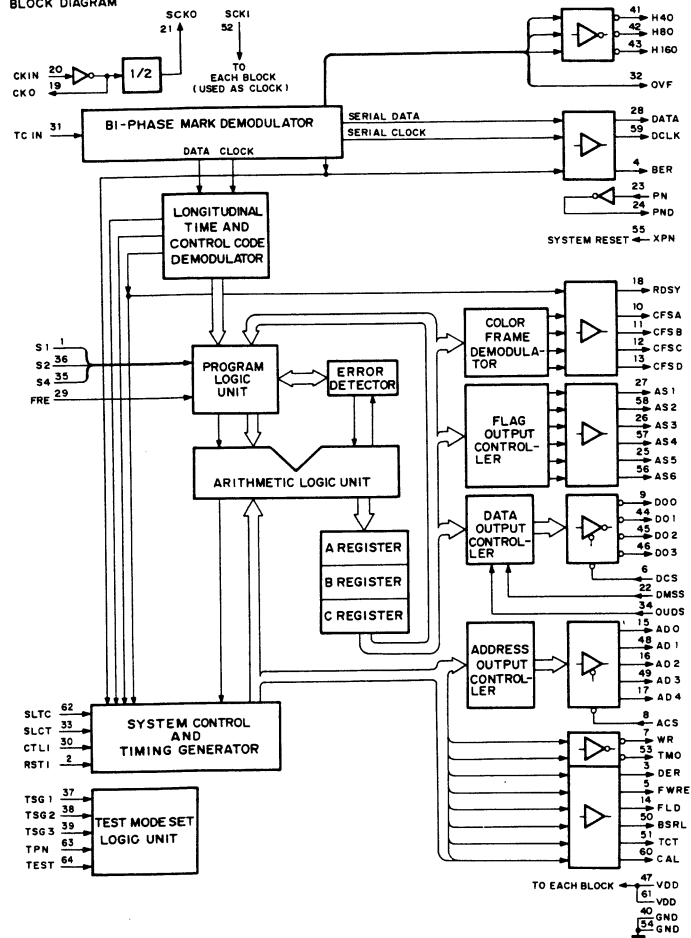
0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

TIMING CHART





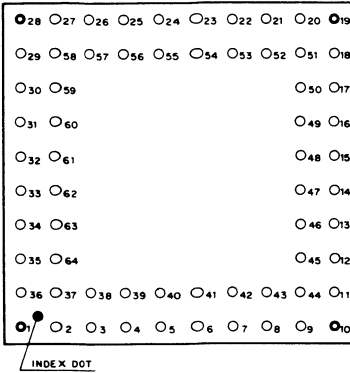
BLOCK DIAGRAM



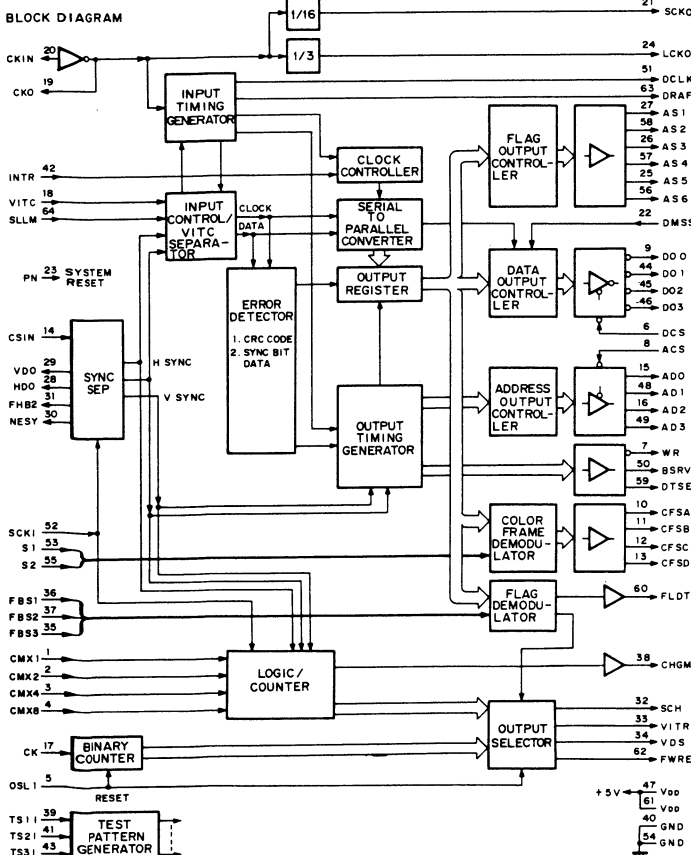
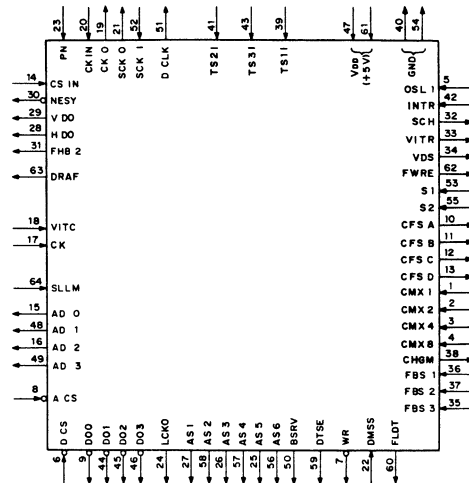
FUNCTIONAL PIN DEFINITION

Pin No.	SYMBOL	DESCRIPTION
8	ACS	ADDRESS LINE OUTPUT ENABLE (NEGATIVE-LOGIC)
15	AD0	ADDRESS DATA OUTPUT
48	AD1	
16	AD2	
49	AD3	
17	AD4	PARALLEL DATA OUTPUT
58	AS1	
26	AS2	
57	AS3	
25	AS4	BI-PHASE MARK ERROR (BIT ERROR) OUTPUT
56	AS5	
23	AS6	
4	BER	
11	CFSB	DATA OUT FLAG OUTPUT
60	CAL	CALCULATE OUT FLAG OUTPUT
10	CFSA	DEMODULATED COLOR FRAME OUTPUT
12	CFSC	
13	CFSD	
20	CKIN	
19	CKO	CLOCK OUTPUT (NEGATIVE-LOGIC)
30	CTLI	CTL SIGNAL INPUT ( )
28	DATA	DEMODULATED SERIAL DATA OUTPUT
59	DCLK	DEMODULATED CLOCK OUTPUT
6	DCS	DATA LINE OUTPUT ENABLE (NEGATIVE-LOGIC)
3	DER	DEMODULATE DATA ERROR OUTPUT
22	DMSS	ASSIGNED DATA SELECT
9	DO0	DATA OUTPUT (NEGATIVE-LOGIC)
44	DO1	
45	DO2	
46	DO3	
14	FLD	FIELD DATA OUTPUT
29	FRE	CTL DIRECTION SIGNAL INPUT
5	FWRE	DEMODULATE DIRECTION SIGNAL OUTPUT
41	H40	SPEED RANGE FLAG 4 OUTPUT (NEGATIVE-LOGIC)
42	H80	SPEED RANGE FLAG 8 OUTPUT (NEGATIVE-LOGIC)
43	H160	SPEED RANGE FLAG 16 OUTPUT (NEGATIVE-LOGIC)
34	OU0S	ERROR BYPASS ON/OFF SELECT
32	OVS	OVERFLOW FLAG OUTPUT
23	PN	POWER ON SIGNAL INPUT
24	PND	POWER ON SIGNAL OUTPUT (NEGATIVE-LOGIC)
18	RDSY	READ SYNC WORD DATA OUTPUT
2	RSTI	CTL TIMER RESET INPUT ( )
1	S1	SIGNAL FORMAT SELECT S1
36	S2	SIGNAL FORMAT SELECT S2
35	S4	SIGNAL FORMAT SELECT S4
52	SCKI	SYSTEM CLOCK INPUT
21	SCKO	SYSTEM CLOCK OUTPUT
33	SLCT	SELECT CTL INPUT
62	SLTC	SELECT LTC INPUT
45	XPN	SYSTEM RESET SIGNAL INPUT (NEGATIVE-LOGIC)
31	TCIN	LONGITUDINAL TIME AND CONTROL CODE INPUT
51	TCT	INPUT SELECT FLAG OUTPUT
53	TMO	TIME OVER SIGNAL OUTPUT (NEGATIVE-LOGIC)
47	WR	WRITE SIGNAL OUTPUT (NEGATIVE-LOGIC)
41	VDD	POWER LINE (+5V)
61	VDD	
40	GND	GND LINE
54	GND	
64	TEST	TEST MODE SET INPUT (TO BE CONNECTED WITH GND)
63	TPN	
37	TSG1	
38	TSG2	
39	TSG3	

CX7913A (SONY)  
C-MOS VITC (VERTICAL INTERVAL TIME CODE) READER  
— TOP VIEW —



PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL
1			CMX 1	17			CK	33			VITR	49			AD 3
2			CMX 2	18			VITC	34			VDS	50			BSRV
3			CMX 4	19			CK 0	35			FBS 3	51			D CLK
4			CMX 8	20			CK IN	36			FBS 1	52			SK 1
5			OSL 1	21			SK 0	37			FBS 2	53			S 1
6			D CS	22			DMSS	38			CHGM	54			GND
7			WR	23			PN	39			TS11	55			S 2
8			ACS	24			LCKO	40			GND	56			AS 6
9			DO 0	25			AS 5	41			TS21	57			AS 4
10			CFS A	26			AS 3	42			INTR	58			AS 2
11			CFS B	27			AS 1	43			TS31	59			DTSE
12			CFS C	28			HDO	44			DO 1	60			FLDT
13			CFS D	29			VDO	45			DO 2	61			VDD(+5V)
14			CS IN	30			NESY	46			DO 3	62			FWRE
15			AD 0	31			FHB 2	47			VDD(+5V)	63			DRAF
16			AD 2	32			SCH	48			AD 1	64			SLLM

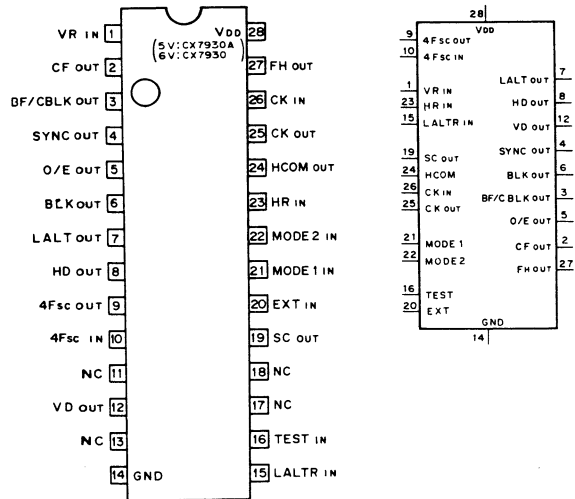


FUNCTIONAL PIN DEFINITION

Pin No.	SYMBOL	DESCRIPTION
8	ACS	ADDRESS LINE ENABLE INPUT
15	AD0	ADDRESS DATA OUTPUT
48	AD1	
16	AD2	
49	AD3	
27	AS1	PARALLEL DATA OUTPUT
58	AS2	
26	AS3	
57	AS4	
25	AS5	DATA OUT FLAG OUTPUT
56	AS6	
50	BSRV	DEMODULATED COLOR FRAME OUTPUT
10	CPSA	
11	CPSB	
12	CPSD	
38	CHGM	CHARACTER V POSITION GATE SIGNAL OUTPUT
17	CK	INTERNAL COUNTER CLOCK INPUT
20	CKIN	CLOCK INPUT
19	CKO	CLOCK OUTPUT (NEGATIVE-LOGIC)
1	CKX1	CHARACTER V POSITION SELECT INPUT
2	CKX2	
3	CKX4	
4	CKX8	
14	CSIN	COMPOSITE SYNC INPUT
51	DCLK	VITC READ CLOCK OUTPUT
6	DCS	DATA LINE ENABLE INPUT
22	DMSS	ASSIGNED BIT DATA SELECT INPUT
44	DO0	DATA OUT (NEGATIVE-LOGIC)
45	DO1	
46	DO2	
47	DO3	
46	DO3	VITC SYNCHRONIZE SIGNAL D OUTPUT
59	DTSE	
63	DRAF	
62	FWRE	
36	FBS1	FIELD MARK POSITION SELECT 1 INPUT
37	FBS2	FIELD MARK POSITION SELECT 2 INPUT
35	FBS3	FIELD MARK POSITION SELECT 3 INPUT
31	FHB2	FW/2 SIGNAL OUTPUT
60	FLDT	FIELD DATA OUTPUT
62	FWRE	TAPE DIRECTION SIGNAL OUTPUT
28	HDO	HORIZONTAL SYNC DRIVE OUTPUT
42	INTR	INTERRUPT REQUEST INPUT
24	LCKO	LTC CLOCK OUTPUT
30	NESY	LOST-SYNC FLAG OUTPUT
5	OSL1	OUTPUT SIGNAL SELECT 1 INPUT
23	PN	POWER ON RESET INPUT
53	S1	SIGNAL FORMAT SELECT S1 INPUT
55	S2	SIGNAL FORMAT SELECT S2 INPUT
32	SCH	OUTPUT SIGNAL SCH
52	SCK1	SYSTEM CLOCK INPUT
21	SCRO	SYSTEM CLOCK OUTPUT
64	SLLM	READ SIZE SELECT INPUT
29	VDO	VERTICAL SYNC DRIVE OUTPUT
34	VDS	OUTPUT SIGNAL VDS
18	VITC	VITC SIGNAL INPUT
33	VITR	OUTPUT SIGNAL VITR
47	VDD	WRITE SIGNAL OUTPUT (NEGATIVE-LOGIC)
61	VDD	POWER LINE (+5V)
40	GND	
54	GND	GND LINE
39	TS11	
41	TS21	
43	TS31	TEST INPUT



CX7930A (SONY) FLAT PACKAGE  
C-MOS SYNC GENERATOR (NTSC, PAL-M, PAL, SECAM)  
— TOP VIEW —



O/E : ODD/EVEN FIELD  
CF : COLOR FRAME PULSE  
HCOM : H COMPARATOR

SYSTEM	4Fsc	CLOCK
NTSC	910 Fh	910 Fh
PAL	1135 Fh+2Fv	908 Fh
PALM	909 Fh	910 Fh
SECAM		908 Fh

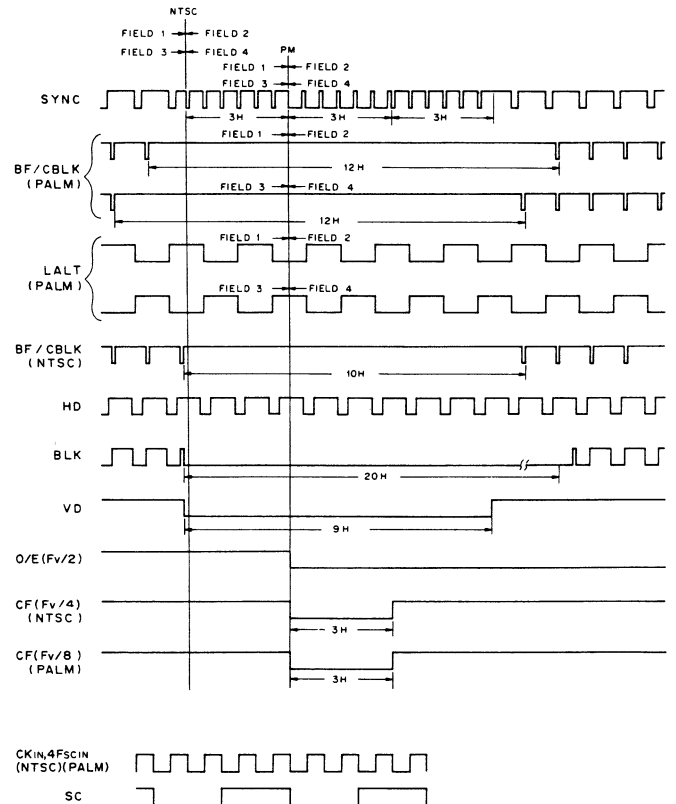
INPUTS	MODE1	MODE2	SYSTEM
0	0	0	NTSC
0	1	1	SECAM
1	0	1	PALM
1	1	1	PAL

INPUTS	EXT	TEST	FUNCTION
0	0	0	INTERNAL
0	1	1	INVALID
1	0	1	EXT
1	1	1	TEST

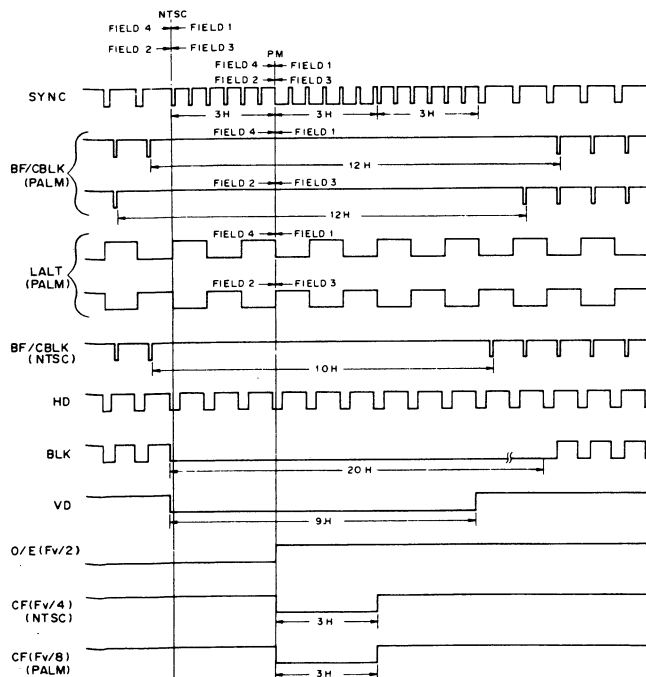
0 : LOW LEVEL (GND)  
1 : HIGH LEVEL (VDD)

TEST "0" : OPEN  
(INTERNALLY  
PULLED DOWN)

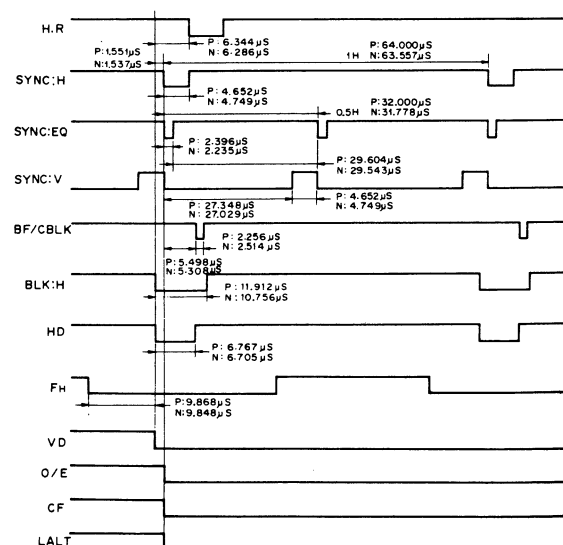
NTSC, PAL-M (FIELD 2, 4)



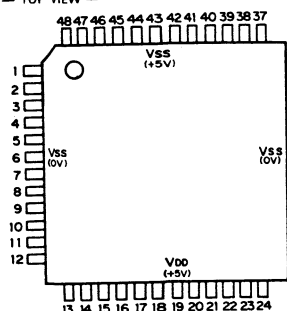
NTSC, PAL-M (FIELD 1, 3)



P: PAL, SECAM  
N: NTSC, PALM



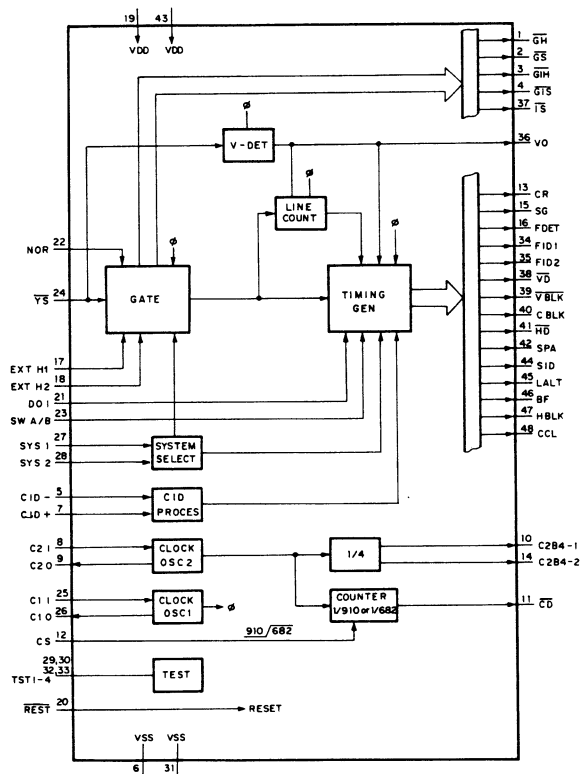
CX7993A (SONY) FLAT PACKAGE  
C-MOS TIMING GENERATOR  
— TOP VIEW —



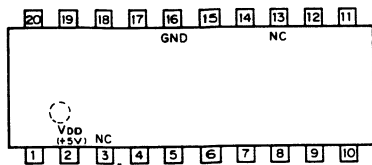
## PIN ASSIGNMENT

PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL
1			GH	13			CR	25			C11	37			IS
2			GS	14			C2B4-2	26			C10	38			VD
3			GIH	15			SG	27			SYS 1	39			VBLK
4			GTS	16			FDET	28			SYS 2	40			CBLK
5			CID -	17			EXTH 1	29			T1	41			HD
6			VSS	18			EXTH 2	30			T2	42			SPA
7			CID +	19			VDD	31			VSS	43			VDD
8			C21	20			RST	32			T3	44			SID
9			C20	21			DOI	33			T4	45			LALT
10			C2B4-1	22			NOR	34			FID 1	46			BF
11			CD	23			SW A/B	35			FID 2	47			HBLK
12			CS	24			YS	36			VO	48			CCL

22	NOR	GH	1	BF	BURST FLAG OUT
24	YS	GS	2	C11	CLOCK 1 IN
17	EXTH 1	GIH	3	C10	CLOCK 1 OUT
18	EXTH 2	GIS	4	C2B4-1	CLOCK 2/4-1
21	DOI	IS	5	C2B4-2	CLOCK 2/4-2
23	SW A/B	VO	6	C21	CLOCK 2 IN
27	SYS 1	CR	13	C20	CLOCK 2 OUT
28	SYS 2	SG	15	CBLK	CHROMA BLANKING PULSE OUT
5		FDET	16	CCL	CHROMA CLAMP
7	CID(-)	FID 1	34	CD	COUNT DOWN SIGNAL
7	CID(+)	FID 2	35	CID+, CID-	CHROMA ID +, - IN
8		VD	38	CR	CORRECT SYNC OUT
9	C21	VBLK	39	CS	COUNTER SELECT IN
9	C20	CBLK	40	EXTH 1	EXTERNAL H-1
25	C11	HD	41	EXTH 2	EXTERNAL H-2
26	C10	SPA	42	FDET	FRAME DET OUT
12	CS	SID	44	FID1 FID2	FRAME ID 1,2 OUT
29	TST 1	LALT	45	GH	GATED H OUT
30	TST 2	BF	46	GIH	GATE/INTERPOLATED H OUT
32	TST 3	HBLK	47	GIS	GATE/INTERPOLATED SYNC OUT
33	TST 4	CCL	48	GS	GATED SYNC OUT
20	RST	CD	11	HBLK	H-BLANKING PULSE OUT
				HD	HD OUT
				IS	INTERPOLATED SYNC OUT
				LALT	LINE ALTERNATE OUT
				NOR	MODE SELECT (NORMAL/SERCH) IN
				RST	RESET IN
				SG	SYNC GATE OUT
				SID	SECAM ID OUT
				SPA	SECAM PHASE ALTERNATE OUT
				SW A/B	Y SWITCHING PULSE A/B IN
				SYS 1, SYS 2	SYSTEM SELECT 1,2 IN
				TST 1, TST 2	TEST 1, TEST 2
				VBLK	V-BLANKING PULSE OUT
				VD	VD OUT
				VO	V OUT
				YS	Y SYNC OUT

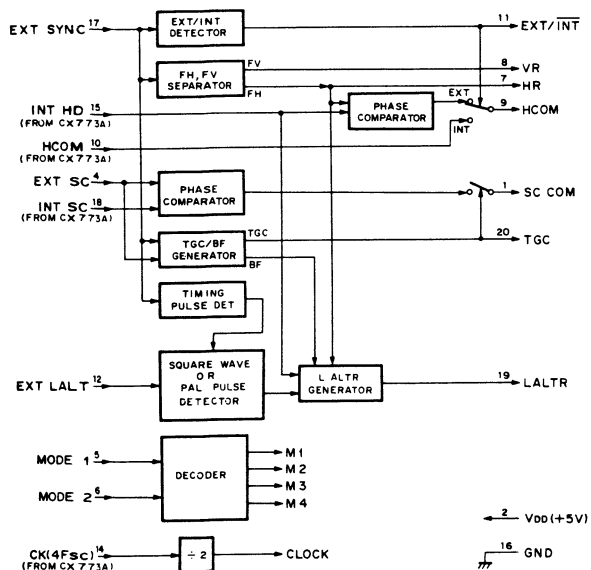


CX7998 (SONY) FLAT PACKAGE  
C-MOS GENLOCK DRIVER FOR CX773A  
— TOP VIEW —

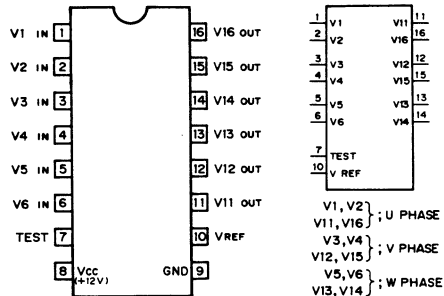


INPUTS		EXT LOCK MODE	
MODE 1	MODE 2	M 1	M 2
0	0	M 1	PAL:VBS
1	0	M 2	PAL-M:VBS
0	1	M 3	PAL:VS/SC/LALT
			SECAM:VS/SC/LALT
1	1	M 4	NTSC:VBS
			NTSC:VS/SC
			PAL-M:VS/SC/LALT

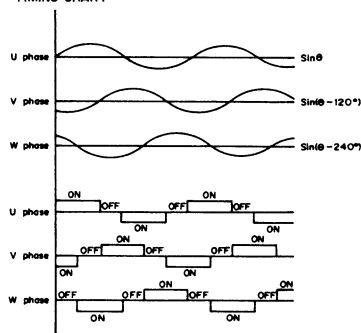
0; LOW LEVEL  
1; HIGH LEVEL



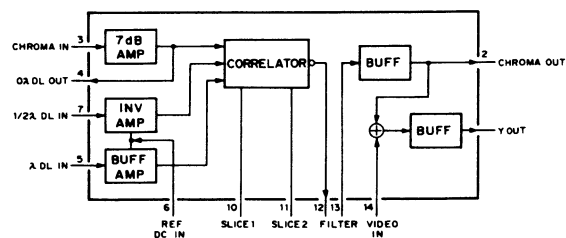
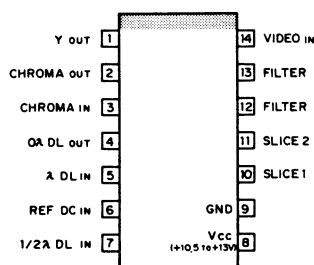
CX877 (SONY)  
MOTOR DRIVER  
— TOP VIEW —



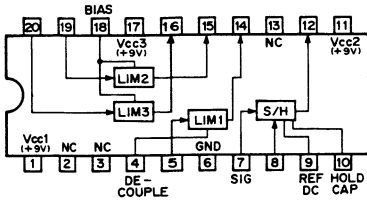
TIMING CHART



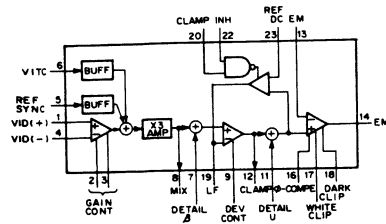
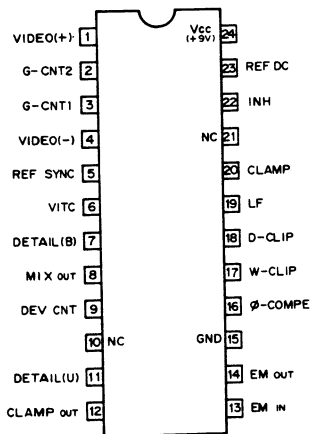
CXA1020P (SONY)  
CHROMA CROSS-COLOR NOISE REDUCER/EDGE COMPENSATOR  
— TOP VIEW —



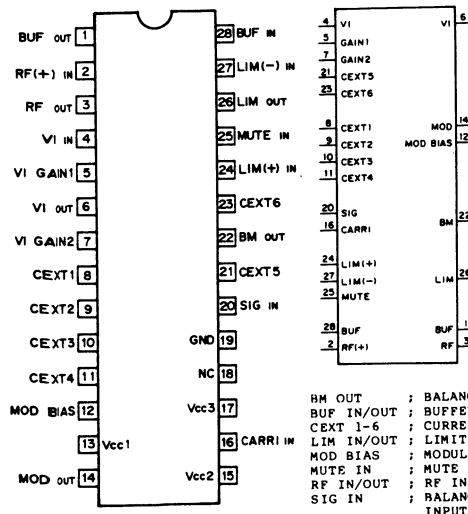
CXA1039M (SONY) PLAT PACKAGE  
DETAIL ENHANCER LIMITER  
— TOP VIEW —



CXA1040M (SONY) MINI FLAT PACKAGE  
VIDEO SIGNAL PROCESSOR  
— TOP VIEW —

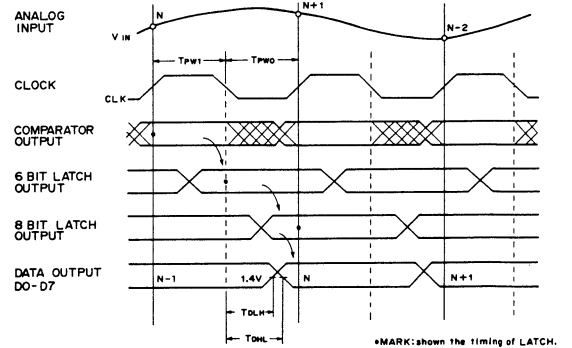
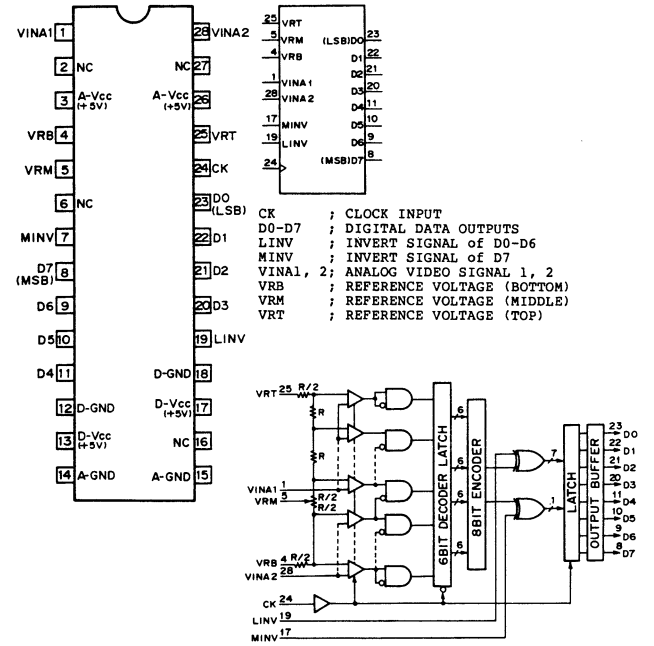


CXA1041M (SONY) MINI FLAT PACKAGE  
FM MODULATOR  
— TOP VIEW —



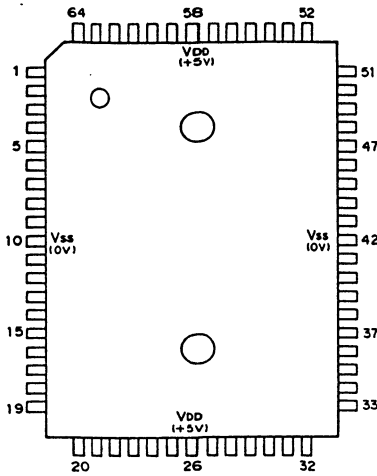
BM OUT ; BALANCED MODULATOR OUTPUT  
BUF IN/OUT ; BUFFER INPUT/OUTPUT  
CEXT 1-6 ; CURRENT MILLER EXIT 1-6  
LIM IN/OUT ; LIMITER INPUT/OUTPUT  
MOD BIAS ; MODULATOR BIAS  
MUTE IN ; MUTE INPUT  
RF IN/OUT ; RF INPUT/OUTPUT  
SIG IN ; BALANCED MODULATOR SIGNAL INPUT

CXA1096M (SONY) FLAT PACKAGE  
8-BIT 20MSPS FLASH A/D CONVERTER (TTL INPUT/OUTPUT)  
— TOP VIEW —

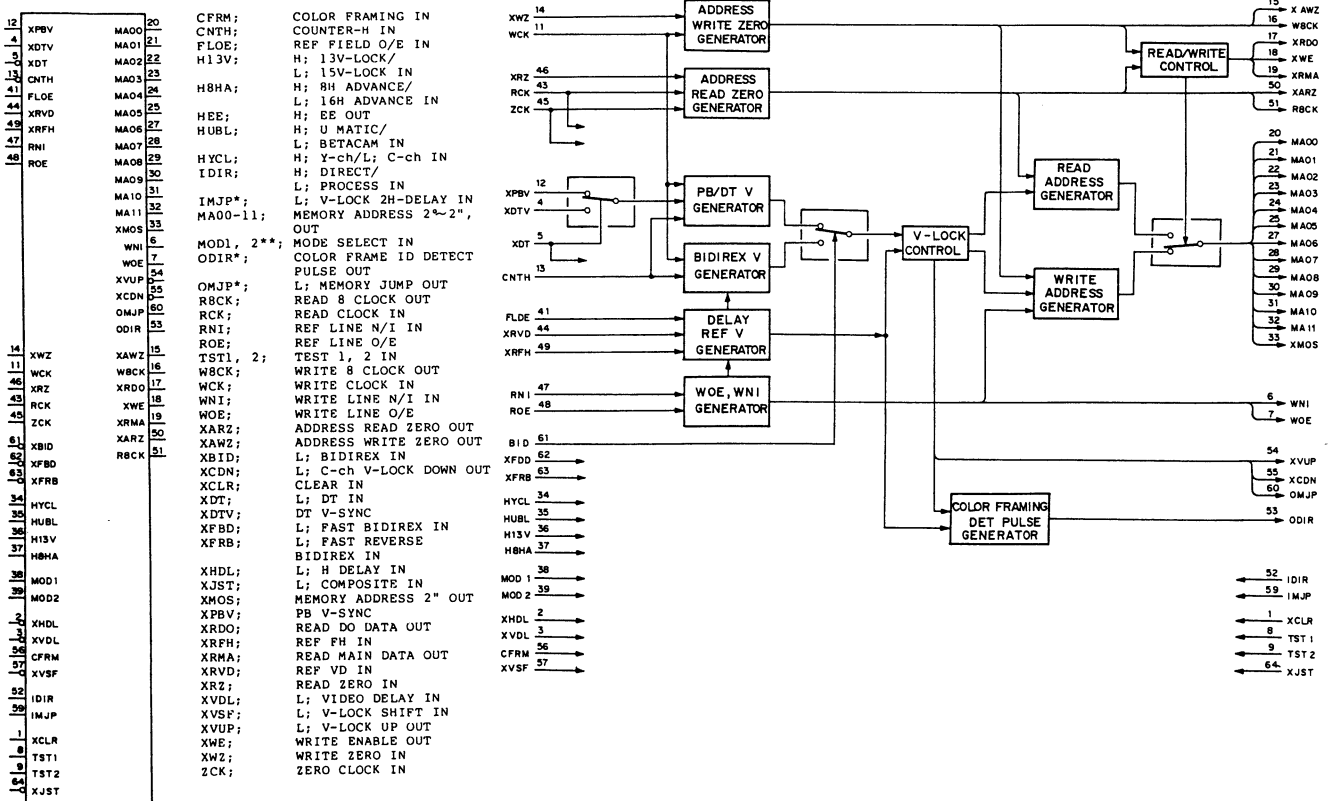




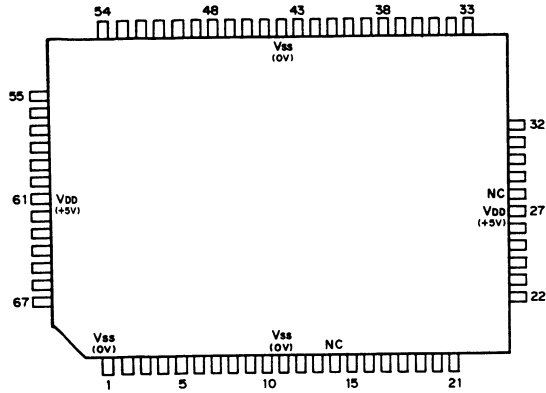
CXD1022CQ (SONY) FLAT PACKAGE  
C-MOS TBC  
— TOP VIEW —



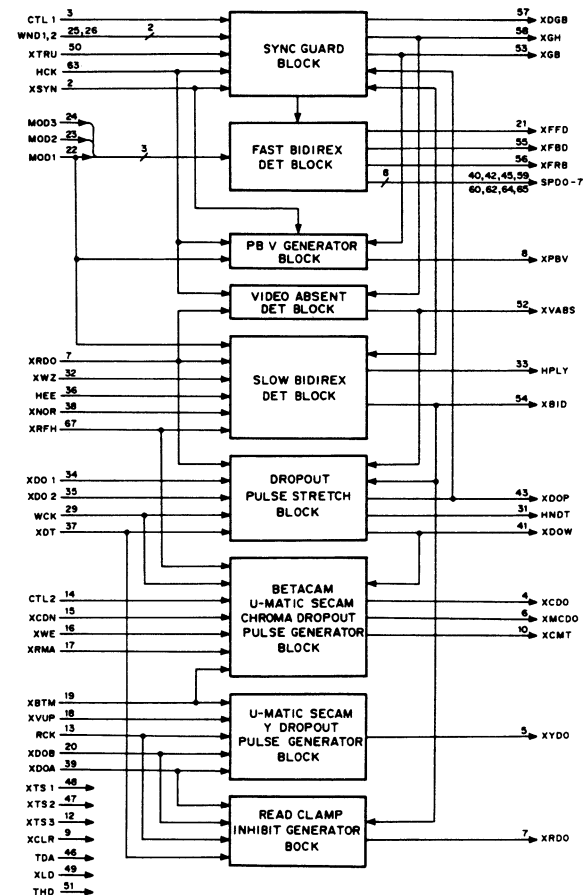
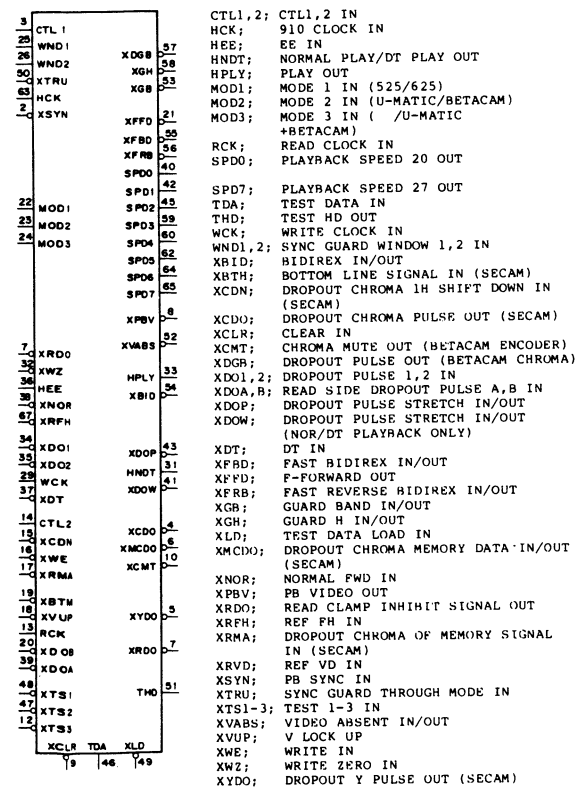
PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL
1			XCLR	17			XRDO	33			XMOS	49			XRFH	64			XJST
2			XHDL	18			XWE	34			HYCL	50			XARE				
3			XVDL	19			XRMA	35			HUBL	51			RBCK				
4			XDTV	20			MA00	36			H13V	52			IDIR				
5			XDT	21			MA01	37			H8HA	53			ODIR				
6			WNI	22			MA02	38			MOD1	54			XVUP				
7			WOE	23			MA03	39			MOD2	55			XCDN				
8			TST1	24			MA04	40			HEE	56			CFRM				
9			TST2	25			MA05	41			FLOE	57			XVSF				
10			VSS	26			VDD	42			VSS	58			VDD				
11				27			MA06	43				59			IMJP				
12			XPBV	28			MA07	44			XRVD	60			CMJP				
13			CNTH	29			MA08	45				61			XBID				
14				30			MA09	46				62			XFB0				
15			XAWZ	31			MA10	47				63			XFRB				
16			WBCK	32			MA11	48				64							



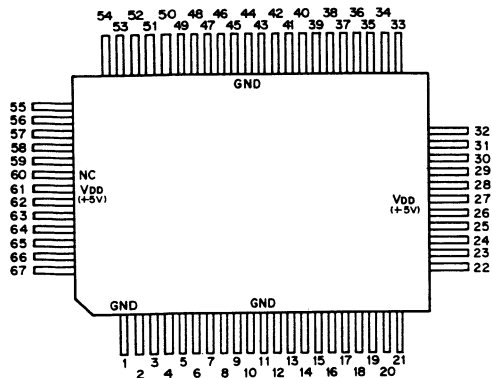
CXD1023AQ (SONY) FLAT PACKAGE  
C-MOS T8C  
— TOP VIEW —



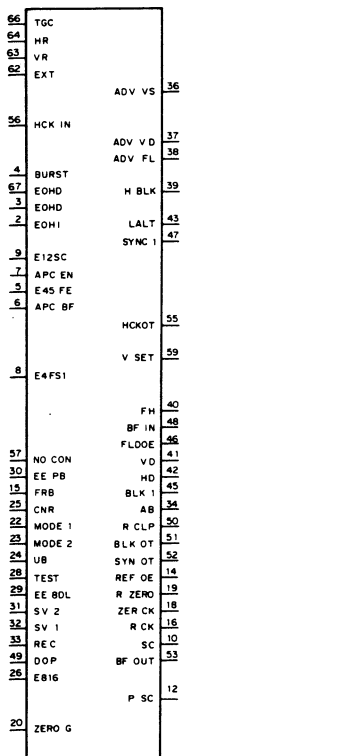
PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL	PIN NO	IN	OUT	SYMBOL
1			Vss	21			XFFD	41			XDOW	61			VDD
2			XSYN	22			MOD1	42			SPD6	62			SPD2
3			CTL1	23			MOD2	43			XDOP	63			HCK
4			XCDO	24			MOD3	44			Vss	64			SPD1
5			XYDO	25			WND1	45			SPD5	65			SPD0
6			XMCD0	26			WND2	46			TDA	66			XRVD
7			XRDO	27			VDD	47			XTS1	67			XRFH
8			XPBV	28			WCK	48			XTS2				
9			XCRL	29			WCK	49			XLD				
10			XCMT	30			WCK	50			XTRU				
11			Vss	31			HNDT	51			THD				
12			XTS3	32			XWZ	52			XVABS				
13			RCK	33			HPLY	53			XGB				
14			CTL2	34			XDO1	54			XBID				
15			XCDN	35			XDO2	55			XFB0				
16			XWE	36			HEE	56			XFRB				
17			XRMA	37			XDT	57			XDGB				
18			XVUP	38			XNOR	58			XGH				
19			XBTH	39			XDOA	59			SPD4				
20			XDOB	40			SPD7	60			SPD3				



CXD1024Q (SONY)  
C-MOS TIMING PULSE GENERATOR FOR TBC  
— TOP VIEW —

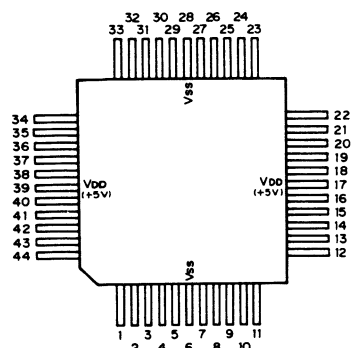


PIN NO./IN/OUT	SYMBOL	PIN NO./IN/OUT	SYMBOL	PIN NO./IN/OUT	SYMBOL	PIN NO./IN/OUT	SYMBOL				
1	—	GND	18	0	ZEROK	35	0	WVCRZ	52	0	SYNOT
2	I	EOH1	19	0	RZERO	36	0	ADVVS	53	0	BFOUT
3	0	EDHO	20	I	ZEROG	37	I	ADVVO	54	0	ESPLD
4	I	BURST	21	0	E14CK	38	I	ADVFL	55	0	HCKOT
5	0	E45FE	22	I	MODE1	39	0	HBLK	56	I	HCKIN
6	0	APCBF	23	I	MODE2	40	I	FH	57	I	NOCON
7	I	APCEN	24	I	UB	41	I	VD	58	0	LALST
8	I	E4FS1	25	I	CNR	42	I	HD	59	0	V SET
9	0	E12SC	26	I	E816	43	I	ALT	60		
10	0	SC	27	—	VDD	44	—	VDD	61	—	VDD
11	—	GND	28	I	TEST	45	I	BLK1	62	I	EXT
12	0	PSC	29	I	EE8DL	46	I	FLDOE	63	I	VR
13	0	REFNI	30	I	EEP8	47	I	SYNC1	64	I	HR
14	0	REFOE	31	I	SV2	48	I	BFIN	65	I	LALTR
15	I	FRB	32	I	SV1	49	I	DOP	66	I	TGC
16	0	ROK	33	I	REC	50	I	RCLP	67	0	EOHD
17	0	HRCR	34	I	AB	51	I	BLKOT			

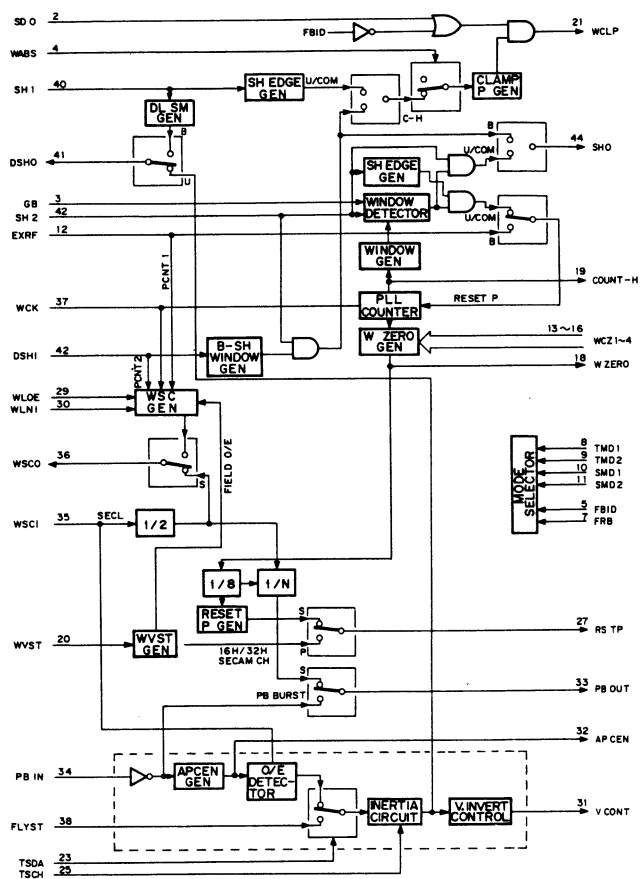
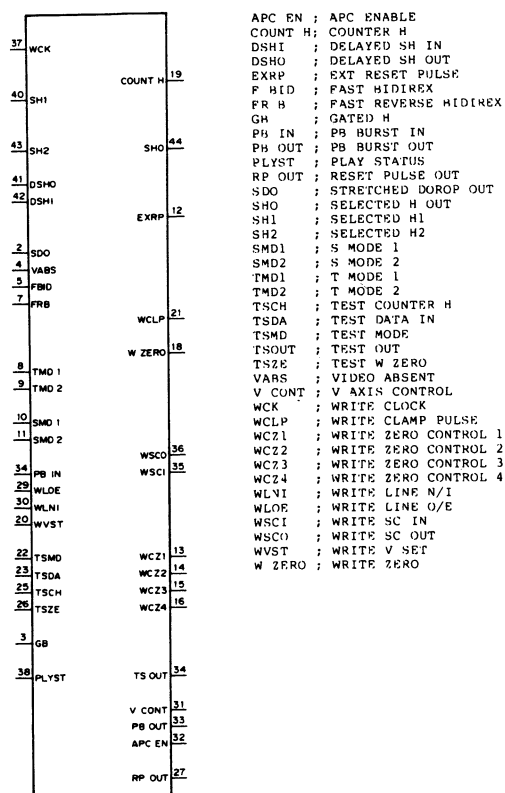


AB : ADVANCE SYNC V PHASE CONTROL  
 ADVFL : ADVANCE SYNC FIELD O/E OUT  
 ADVVD : ADVANCE SYNC VD OUT  
 ADVVS : ADVANCE SYNC V SET PULSE OUT  
 APCBF : APC BURST FLAG  
 APCEN : APC ENABLE  
 BF IN : BF IN  
 BF OUT : BF OUT  
 HCKIN : HCK IN  
 HCKOT : HCK OUT  
 BURST : BURST  
 DOP : CLAMP PULSE INHIBIT  
 E12SC : 1/2 SC OUT  
 E14SC : 1/4 SC OUT  
 E4FS1 : 4 FSC IN  
 E45FE : 4/5 FSC OUT  
 E8/6 : 16/32  
 EE8DL : 8H DELAY  
 EEP8 : ADVANCE OFF  
 EOHD : HD  
 EOH1 : H IN  
 EOH0 : H OUT  
 ESPLD : LINE DO  
 EXT : EXT  
 FH : FH  
 FLDOE : FIELD O/E  
 FRB : FIRST REVERSE BIDIREX  
 HBLK : H BLANKING PULSE  
 HCK IN : HCK IN  
 HCK OT : HCK OUT  
 HD : HD  
 HR : HR  
 HRCK : 1/2 READ CK  
 LALST : LINE ALTERNATE SET  
 LALT : LINE ALTERNATE  
 LALTR : LINE ALTERNATE RESET  
 MODE 1 : MODE 1  
 MODE 2 : MODE 2  
 NOCON : CONF1  
 PSC : PROCESS SC OUT  
 RCLP : READ CLAMP PULSE  
 REC : REC  
 REFNI : REF N/I  
 REF0E : REF O/E  
 RCK : READ CK  
 RZERO : READ ZERO  
 SC : SC OUT  
 SV 1 : SV 1  
 SV 2 : SV 2  
 SYNC1 : SYNC IN  
 SYNOT : SYNC OUT  
 TEST : TEST  
 TGC : TGC  
 UB : Umatic/Betacam  
 VD : VD  
 VR : V RESET  
 V SET : V SET  
 WVCRZ : CHROMA READ ZERO  
 ZEROK : ZERO CK  
 ZEROG : ZERO GATE

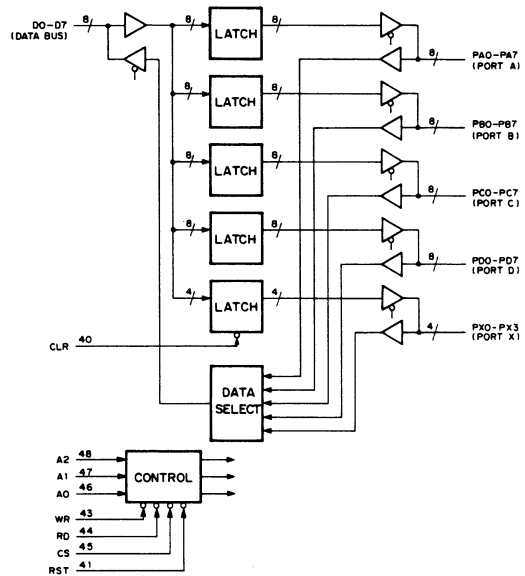
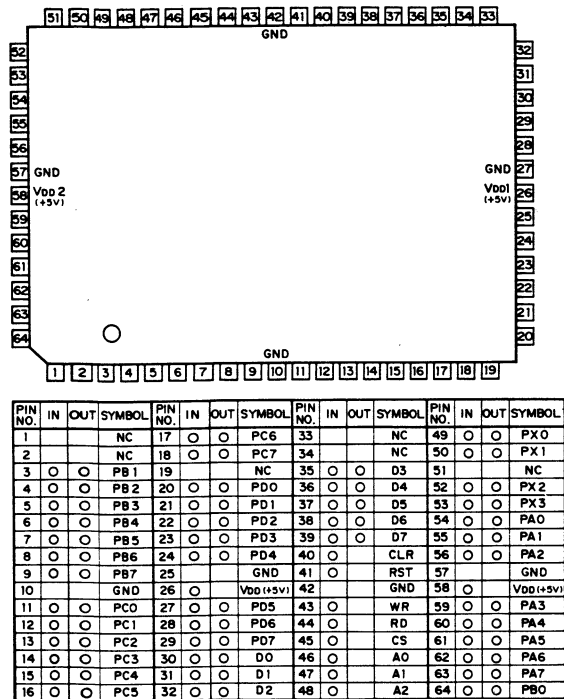
CXD1045Q (SONY)  
C-MOS PLL COUNTER FOR TBC (WRITE CLOCK)  
— TOP VIEW —



PIN	NOIN/OUT	SYMBOL	PIN	NOIN/OUT	SYMBOL	PIN	NOIN/OUT	SYMBOL	PIN	NOIN/OUT	SYMBOL
1	I	Vss2	12	I	EXRP	23	I	TS0A	34	I	PBIN
2	I	SDO	13	I	WCZ1	24	I	TSOUT	35	I	WCIN
3	I	GB	14	I	WCZ2	25	I	TS0I	36	O	WSCO
4	I	VMS5	15	I	WCZ3	26	I	TSZE	37	I	WCK
5	I	FBID	16	I	WCZ4	27	O	RPOUT	38	I	PLYST
6	I	Vss	17	—	Vdd	28	—	Vss	39	—	Vdd
7	I	FRB	18	O	WZERO	29	I	WL0E	40	I	SH1
8	I	TMO	1	O	COUNT	30	I	WLNI	41	O	DSHO
9	I	TMO	2	O	WVST	31	O	V CONT	42	I	DSHI
10	I	SMD	1	O	WCLP	32	O	APC EN	43	I	SH2
11	I	SMD	2	O	TSMD	33	O	RPOUT	44	O	SHO



CXD1095Q (SONY) FLAT PACKAGE  
C-MOS I/O PORT EXPANDER  
— TOP VIEW —

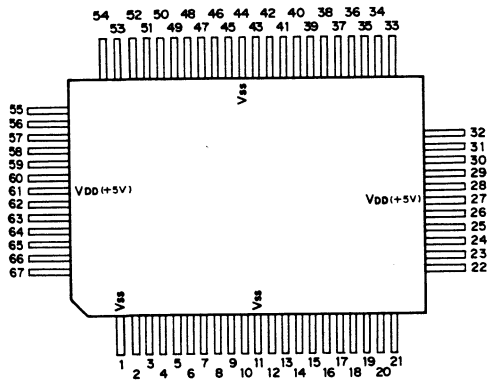


PA0	54	CS	RD	WR	A2	A1	A0	MODE
PA1	55	0	0	1	0	0	0	PORT A ← DATA BUS
PA2	56	0	0	1	0	0	1	PORT B ← DATA BUS
PA3	59	0	0	1	0	1	0	PORT C ← DATA BUS
PA4	60	0	0	1	0	1	1	PORT D ← DATA BUS
PA5	61	0	0	1	1	0	0	PORT X ← DATA BUS
PA6	62	0	0	1	1	0	1	—
PA7	63	0	0	1	1	1	0	—
		0	0	1	1	1	1	—
PB0	64	0	1	0	0	0	0	DATA BUS → PORT A
PB1	3	0	1	0	0	0	1	DATA BUS → PORT B
PB2	4	0	1	0	0	1	0	DATA BUS → PORT C
PB3	5	0	1	0	0	1	1	DATA BUS → PORT D
PB4	6	0	1	0	1	0	0	DATA BUS → PORT X
PB5	7	0	1	0	1	0	1	—
PB6	8	0	1	0	1	1	0	—
PB7	9	0	1	0	1	1	1	—
PC0	11	0	1	0	1	1	0	DATA BUS → CTL REG.1
PC1	12	0	1	0	1	1	1	DATA BUS → CTL REG.2
PC2	13	1	X	X	X	X	X	DATA BUS; HI-Z
PC3	14							
PC4	15							
PC5	16							
PC6	17							
PC7	18							
PD0	20							
PD1	21							
PD2	22							
PD3	23							
PD4	24							
PD5	27							
PD6	28							
PD7	29							
PX0	49							
PX1	50							
PX2	51							
PX3	53							
DO	30							
D1	31							
D2	32							
D3	33							
D4	34							
D5	35							
D6	36							
D7	37							
A0	46							
A1	47							
A2	48							
CS	45							
RD	44							
WR	43							
RST	41							
CLR	40							

0; LOW LEVEL  
 1; HIGH LEVEL  
 X; DON'T CARE  
 HI-Z, HIGH IMPEDANCE

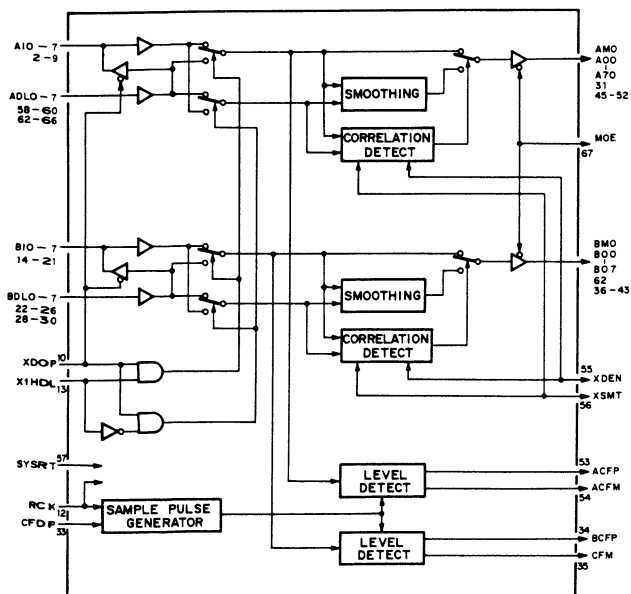
DO-D7; DATA BUS INPUTS/OUTPUTS  
 CS; CHIP SELECT INPUT  
 RD; READ STROBE INPUT  
 WR; WRITE STROBE INPUT  
 A0-A2; ADDRESS INPUT  
 RST; RESET INPUT  
 CLR; CLEAR INPUT  
 PA0-PA7; PORT A INPUTS/OUTPUTS  
 PB0-PB7; PORT B INPUTS/OUTPUTS  
 PC0-PC7; PORT C INPUTS/OUTPUTS  
 PD0-PD7; PORT D INPUTS/OUTPUTS  
 PX0-PX3; PORT X INPUTS/OUTPUTS

CXD1131Q (SONY)  
C-MOS GATE ARRAY  
— TOP VIEW —

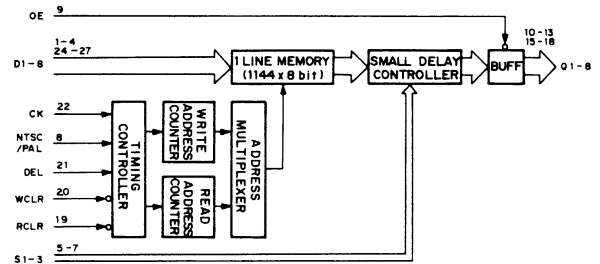
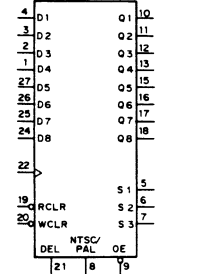
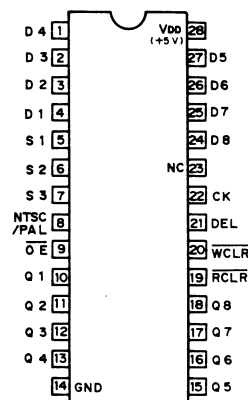


PIN NO.	IN/OUT	SYMBOL	PIN NO.	IN/OUT	SYMBOL	PIN NO.	IN/OUT	SYMBOL	PIN NO.	IN/OUT	SYMBOL
1	—	Vss	18	I	BI3	35	O	BCFM	52	O	A70
2	I	AI7	19	I	BI2	36	O	BO0	53	O	ACFP
3	I	AI6	20	I	BI1	37	O	BO1	54	O	ACFM
4	I	AI5	21	I	BI0	38	O	BO2	55	I	XDEN
5	I	AI4	22	I	BDLO	39	O	BO3	56	I	XSMT
6	I	AI3	23	I	BDL1	40	O	BO4	57	I	YSRT
7	I	AI2	24	I	BDL2	41	O	BO5	58	I	ADL7
8	I	AI1	25	I	BDL3	42	O	BO6	59	I	ADL6
9	I	AI0	26	I	BDL4	43	O	BO7	60	I	ADL5
10	I	XDOP	27	—	VDD	44	—	Vss	61	—	VDD
11	—	Vss	28	I	BDL5	45	O	A00	62	I	ADL4
12	I	RCK	29	I	BDL6	46	O	A10	63	I	ADL3
13	I	X1HDL	30	I	BDL7	47	O	A20	64	I	ADL2
14	I	BI7	31	O	AMO	48	O	A30	65	I	ADL1
15	I	BI6	32	O	BMO	49	O	A40	66	I	ADLO
16	I	BI5	33	I	CFDP	50	O	A50	67	I	HOE
17	I	BI4	34	O	BCFP	51	O	A60			

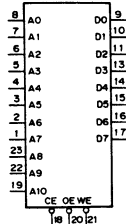
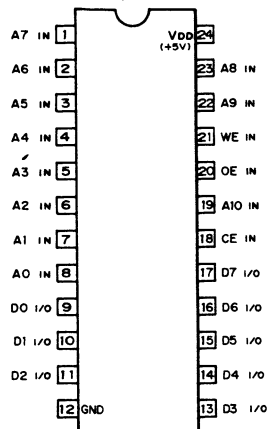
ACFM :A-ch COLOR FRAME ID MINUS  
ACFP :A-ch COLOR FRAME ID PLUS  
ADLO 7 :A-ch 1H DELAYED INPUT DATA  $2^9 \sim 2^7$   
AI0 7 :A-ch INPUT DATA  $2^9 \sim 2^7$   
AMO :A-ch OUTPUT DATA 2  
A00 A70 :A-ch OUTPUT DATA  $2^9 \sim 2^7$   
BCFM :B-ch COLOR FRAME ID MINUS  
BCFP :B-ch COLOR FRAME ID PLUS  
BDLO 7 :B-ch 1H DELAYED INPUT DATA  $2^9 \sim 2^7$   
BI0 7 :B-ch INPUT DATA  $2^9 \sim 2^7$   
BO0 7 :B-ch OUTPUT DATA  $2^9 \sim 2^7$   
BMO :B-ch OUTPUT DATA 2  
CFDP :COLOR FRAME ID DETECT PULSE  
HOE :H; OUTPUT ENABLE  
RCK :READ CK  
YSRT :SYSTEM RESET  
XDEN :CORRELATION DETECT ENABLE  
XDOP :DROP OUT PULSE  
XSMT :SMOOTHING  
X1HDL :1HDL SELECT



CXK1202S (SONY)  
C-MOS DIGITAL DELAY LINE  
— TOP VIEW —



CXK5816M-12L (SONY) (ACCESS TIME 120nS)  
C-MOS 16K (2Kx8-BIT) STATIC RAM  
— TOP VIEW —

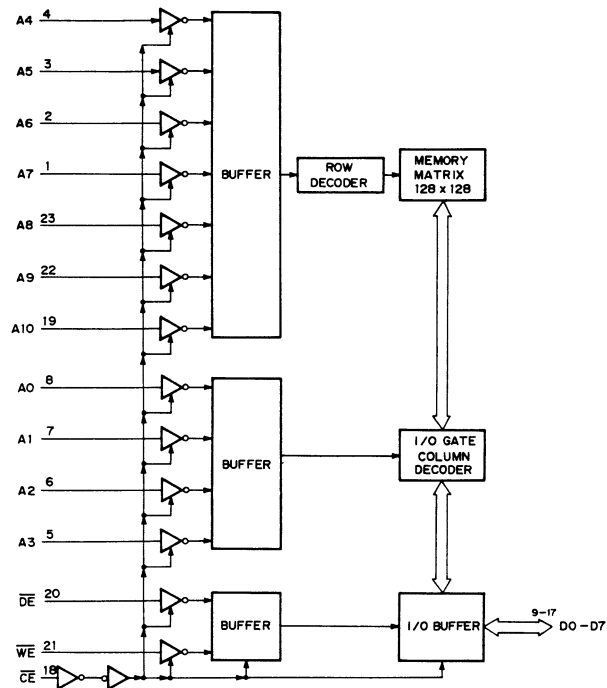


A0-A10; ADDRESS INPUTS  
CE ; CHIP ENABLE INPUT  
DO-D7 ; DATA INPUTS/OUTPUTS  
OE ; OUTPUT ENABLE INPUT  
WE ; WRITE ENABLE INPUT

# MODE SELECTION

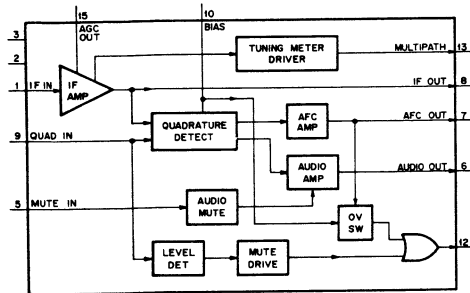
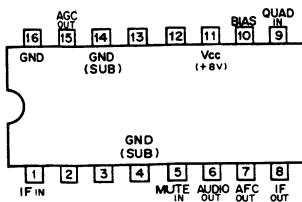
CONTROL INPUTS			MODE
CE	OE	WE	
1	X	X	NO CHANGE
0	1	1	DISABLE OUTPUT
0	0	1	READ
0	1	0	WRITE

0 ; LOW LEVEL  
1 ; HIGH LEVEL  
X ; DON'T CARE

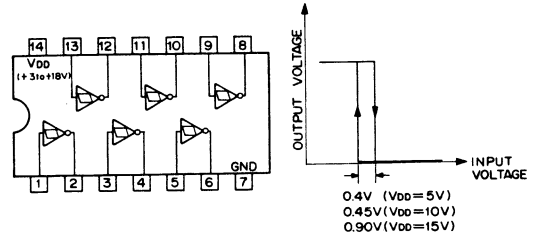




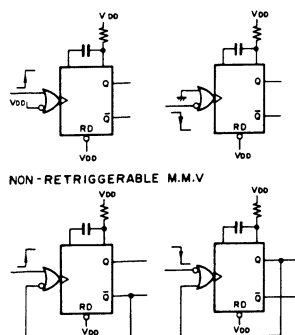
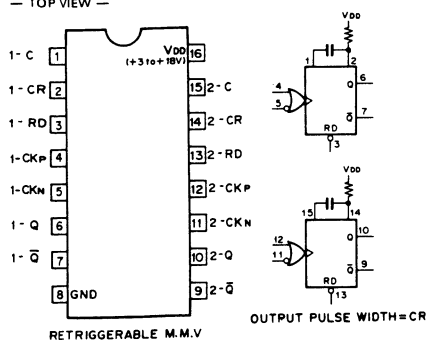
HA12411 (HITACHI)  
FM IF AMPLIFIER  
QUADRATURE DETECT  
AUDIO AMPLIFIER  
MUTING  
AFC  
AGC  
TUNING METER DRIVER



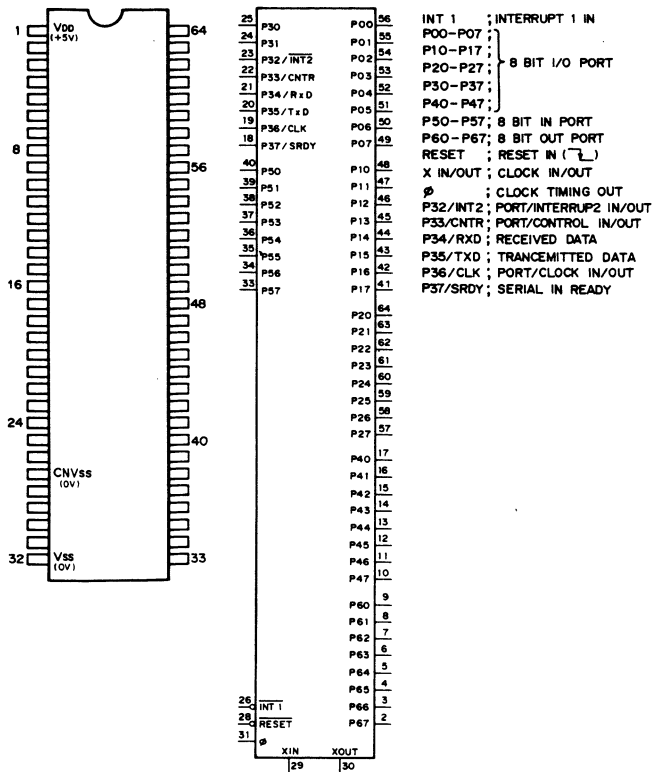
HD14584BFP (HITACHI) FLAT PACKAGE  
C-MOS SCHMITT TRIGGER INVERTER  
— TOP VIEW —



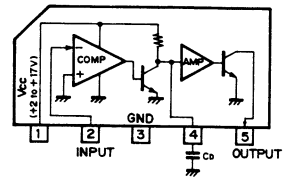
HD14538BFP (HITACHI) FLAT PACKAGE  
MC14538BCP (MOTOROLA)  
TC4538BF (TOSHIBA) FLAT PACKAGE  
TC4538BP (TOSHIBA)  
C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE  
MONOSTABLE MULTIVIBRATOR  
— TOP VIEW —



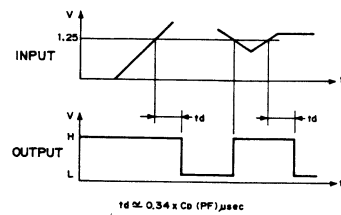
M50747-XXXSP  
C-MOS PROCESS 8-BIT ONE CHIP MICROCOMPUTER  
— TOP VIEW —



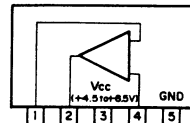
M51958BL (MITSUBISHI)  
VOLTAGE DETECT DELAY  
— PRINTED SIDE VIEW —



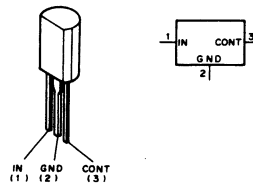
### TIMING CHART



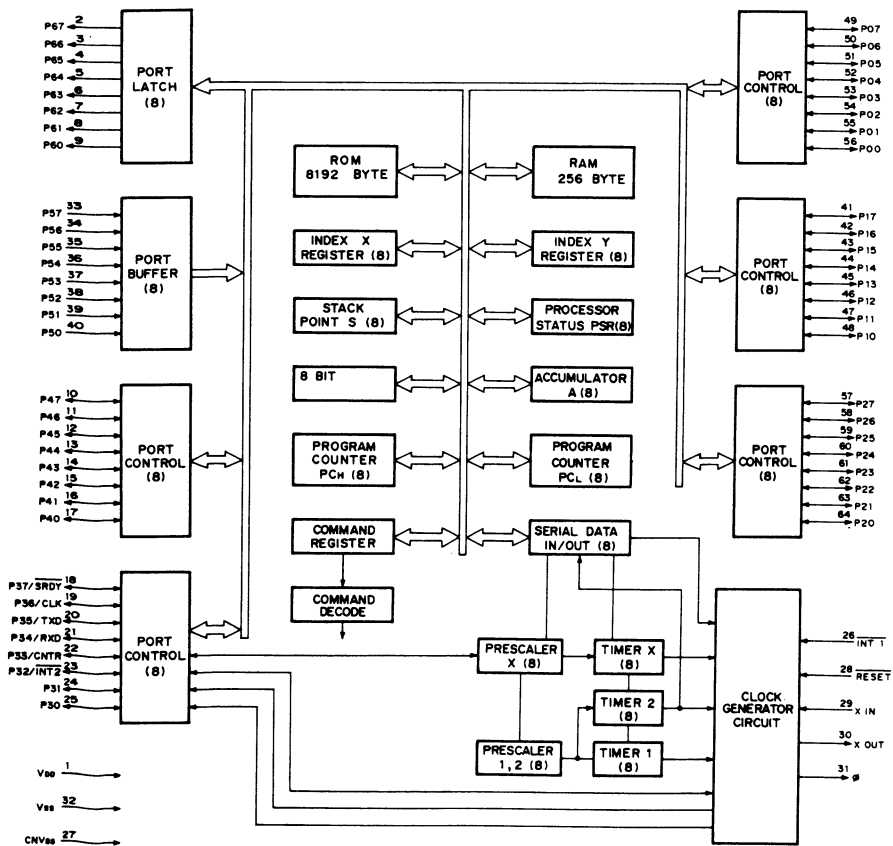
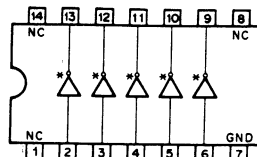
M5215L (MUTSUBISHI)  
FM IF AMPLIFIER  
— REAR VIEW —



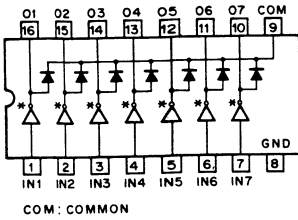
**M5236L (MITSUBISHI)  
ADJUSTABLE VOLTAGE REGULATOR**



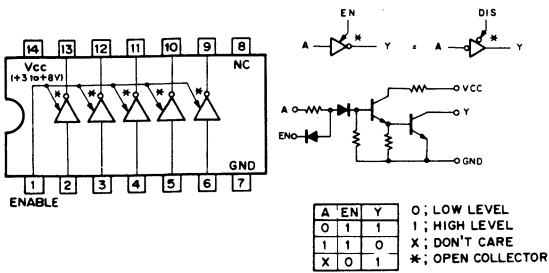
M54516P (MITSUBISHI)  
INVERTER WITH OPEN-COLLECTOR  
(DARLINGTON-CONNECTED TRANSISTOR ARRAY)  
— TOP VIEW —



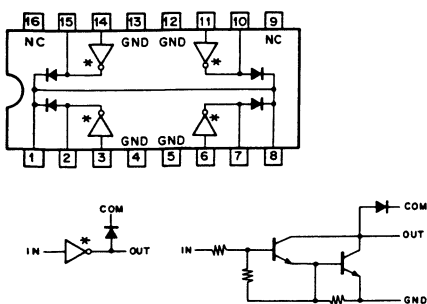
M54523P (MITSUBISHI)  
BIPOLEAR TRANSISTOR ARRAY WITH OPEN COLLECTOR  
— TOP VIEW —



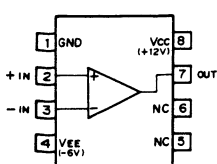
M54529AP (MITSUBISHI)  
TRANSISTOR ARRAY  
— TOP VIEW —



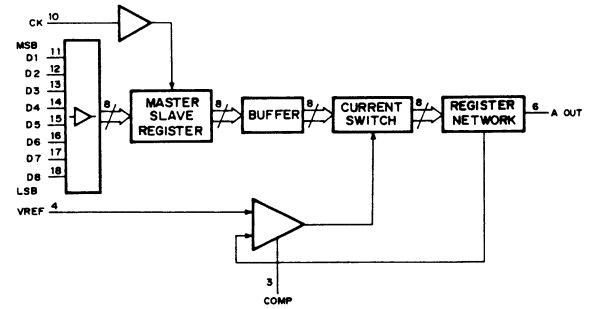
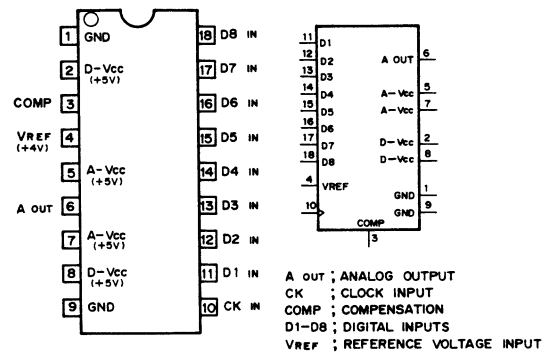
M54532P (MITSUBISHI)  
DARLINGTON TRANSISTOR ARRAY WITH CLAMP DIODE  
— TOP VIEW —



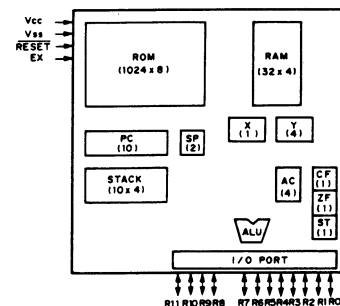
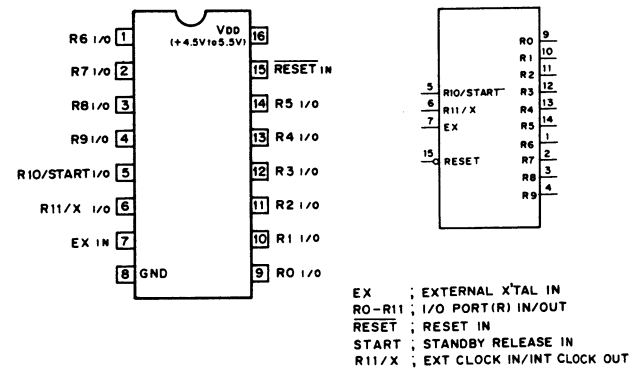
MB4002PF (FUJITSU) FLAT PACKAGE  
VOLTAGE COMPARATOR,  
— TOP VIEW —



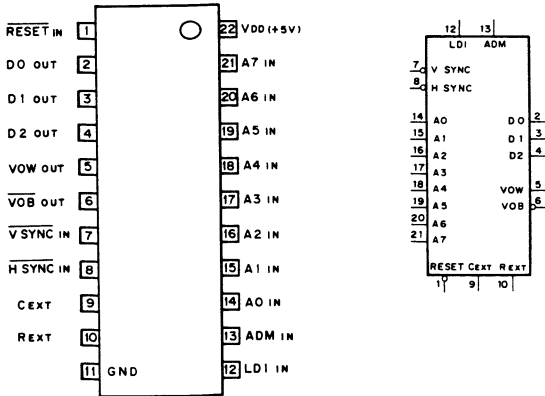
MB40778P (FUJITSU)  
8-BIT VIDEO D/A CONVERTER  
— TOP VIEW —



MB88201H-539N (FUJITSU)  
C-MOS 4 BIT MICROCOMPUTER  
— TOP VIEW —

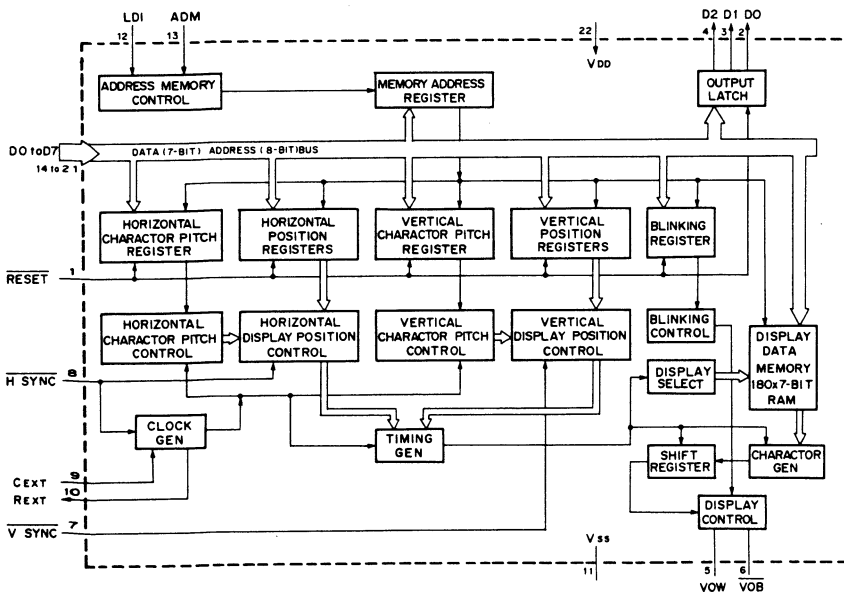


MB88303 (FUJITSU)  
N-MOS PROGRAMMABLE TV DISPLAY CONTROLLER  
— TOP VIEW —

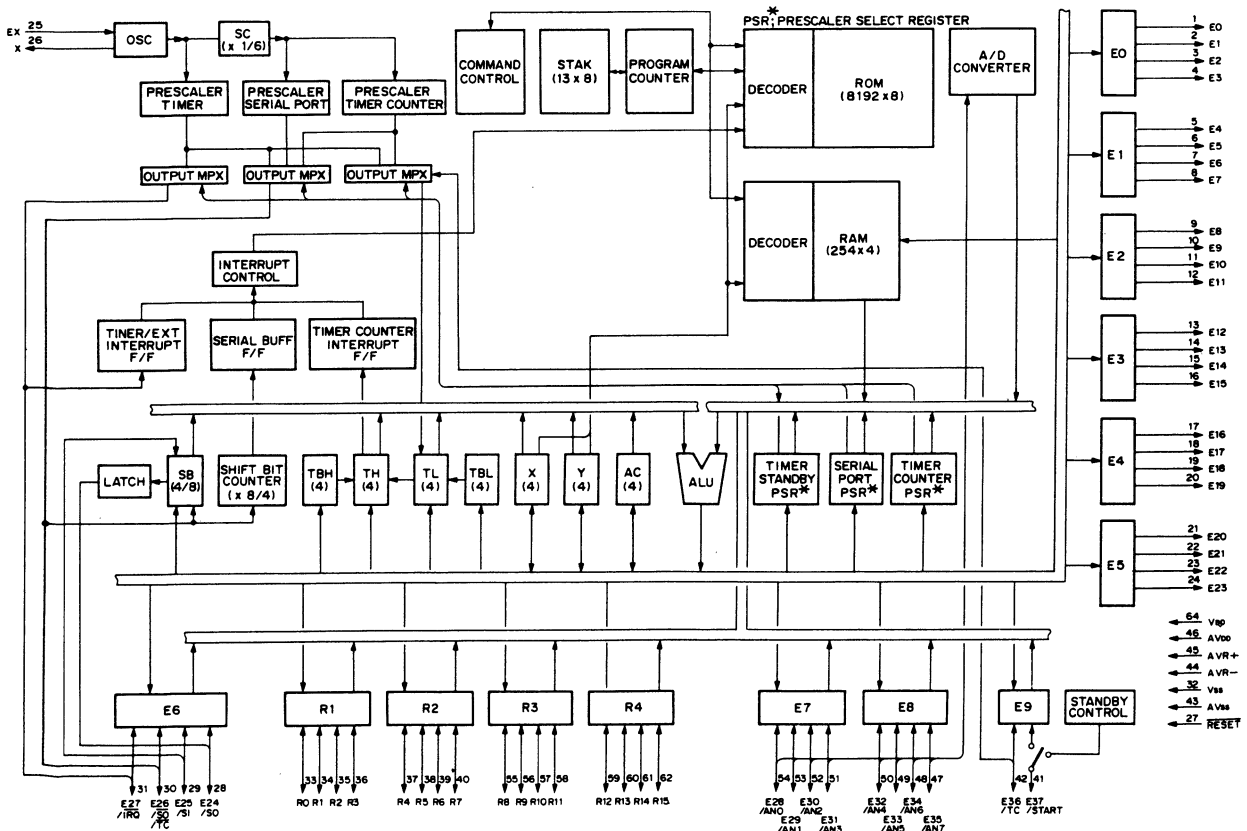
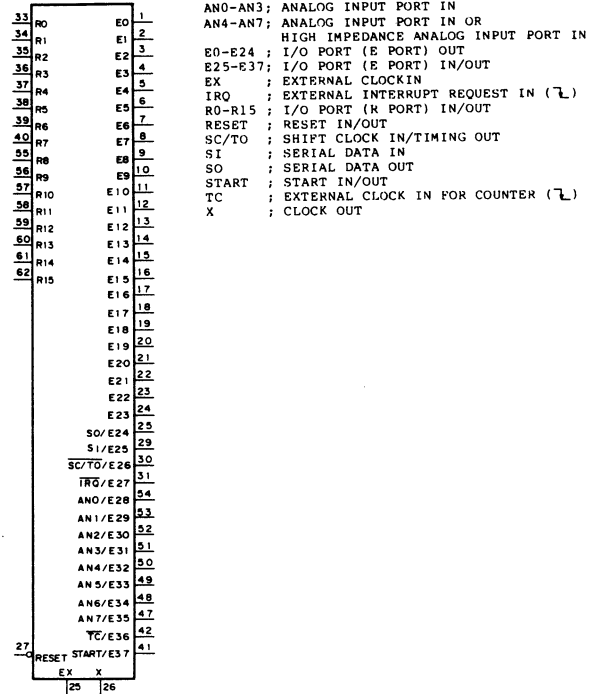
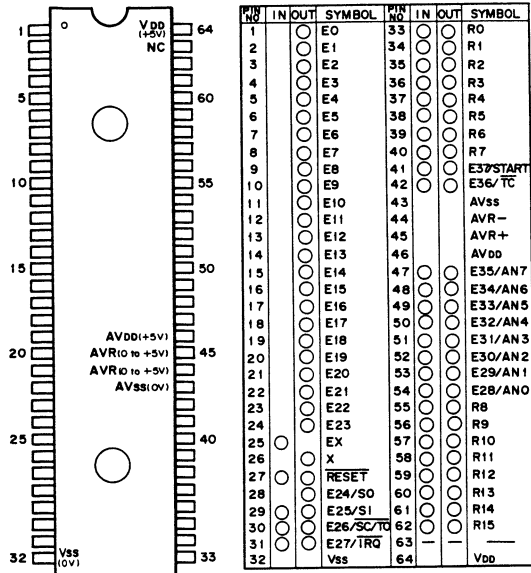


ADM : ADDRESS INCREMENT MODE  
AO to A7 : ADDRESS INPUT  
DO to D2 : DATA OUTPUT  
CEXT : EXT CAPACITOR FOR OSC  
LDI : LOAD DATA AND INSTRUCTION  
VOB : VIDEO BLACK OUT  
VOW : VIDEO WHITE OUT  
REXT : EXT RESISTOR FOR OSC

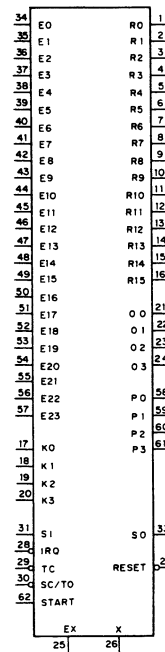
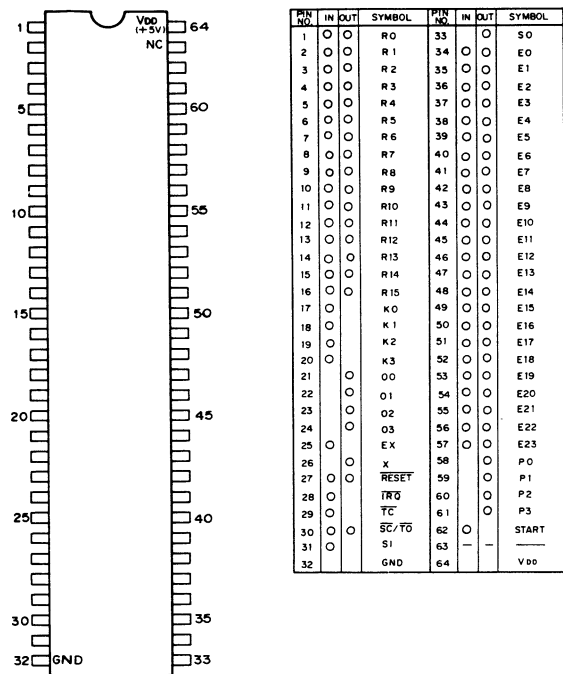
b3-b0	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111
b5-b4	00	A	B	C	D	E	F	G	H	I	J	K	L	M	.	LANE
	01	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	:	(
	10	0	1	2	3	4	5	6	7	8	9	?	!	'	BACK	)
	11	↑	↓	←	→	+	-	*	/	=	&					



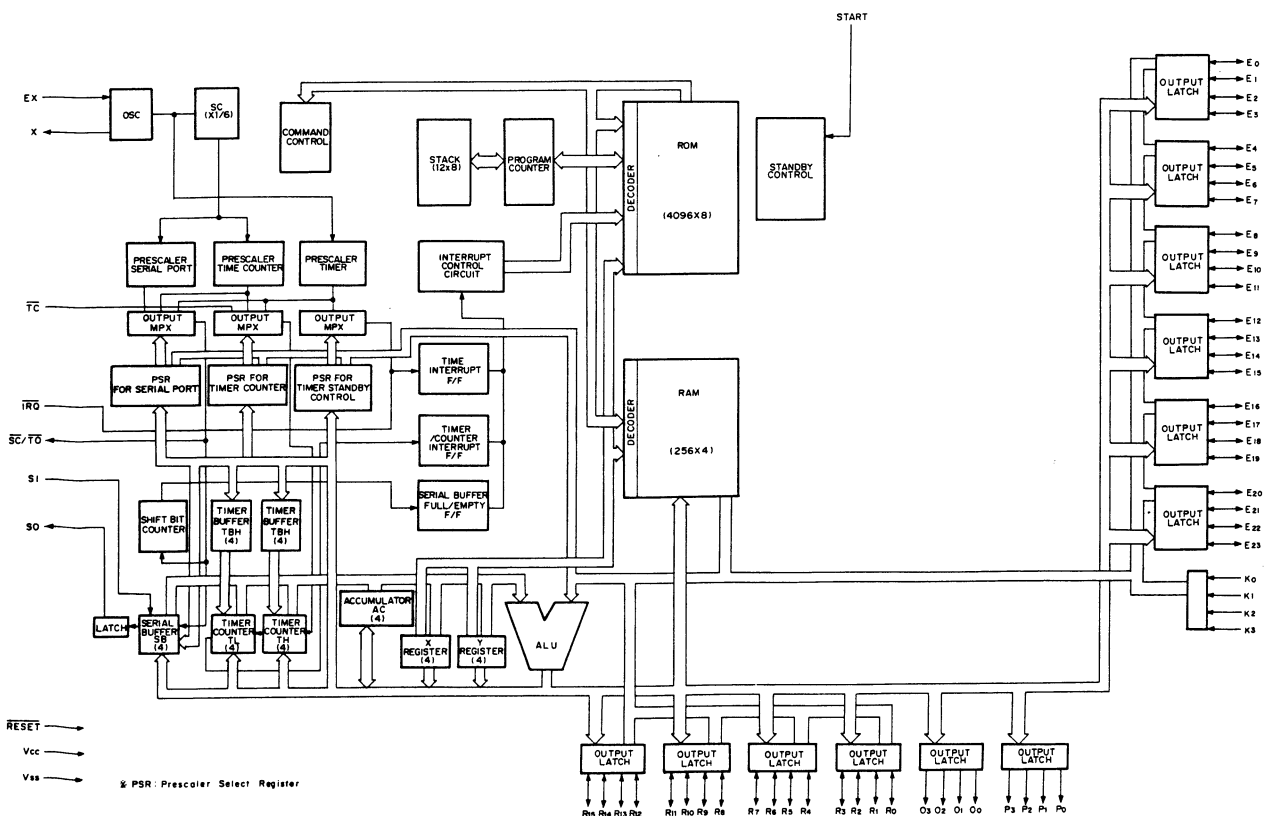
MB88515B-280M (FUJITSU)  
C-MOS 4 BIT ONE-CHIP MICROCOMPUTER WITH MULTI I/O AND 8 BIT A/D CONVERTER  
— TOP VIEW —



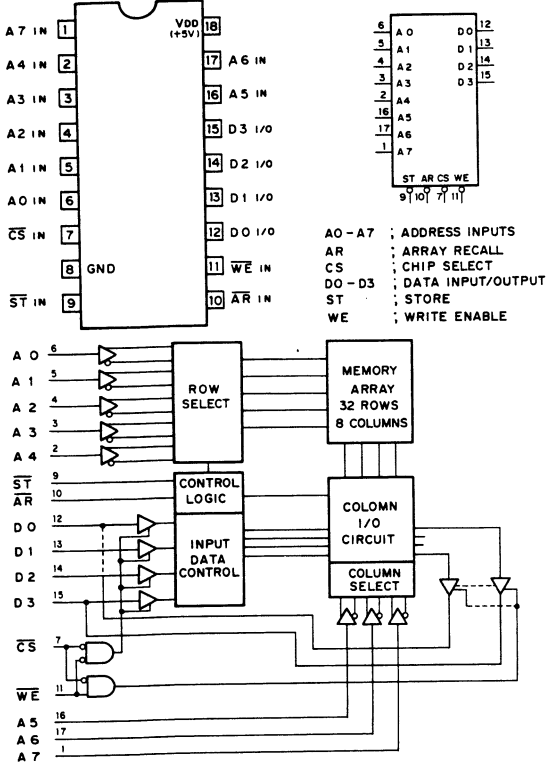
M888525 (FUJITSU)  
C-MOS 4-BIT ONE-CHIP MICROCOMPUTER  
— TOP VIEW —



EO-E23 : I/O PORT (E) IN/OUT  
EX : EXTERNAL CLOCK IN  
IRQ : EXTERNAL INTERRUPT REQUEST IN  
K0-K3 : INPUT PORT(K) IN  
O0-O3 : OUTPUT PORT(O) OUT  
P0-P3 : OUTPUT PORT(P) OUT  
R0-R15 : I/O PORT (R) IN/OUT  
RESET : RESET IN  
SC/TO : SHIFT CLOCK IN/TIMING OUT  
S1 : SERIAL DATA IN  
START : STANDBY RELEASE IN  
S0 : SERIAL DATA OUT  
TC : EXTERNAL CLOCK IN  
X : CLOCK OUT



MBM2212-25P (FUJITSU) (ACCESS TIME = 250 nS)  
N-MOS 1024 (256x4)-BIT NONVOLATILE STATIC RAM  
— TOP VIEW —



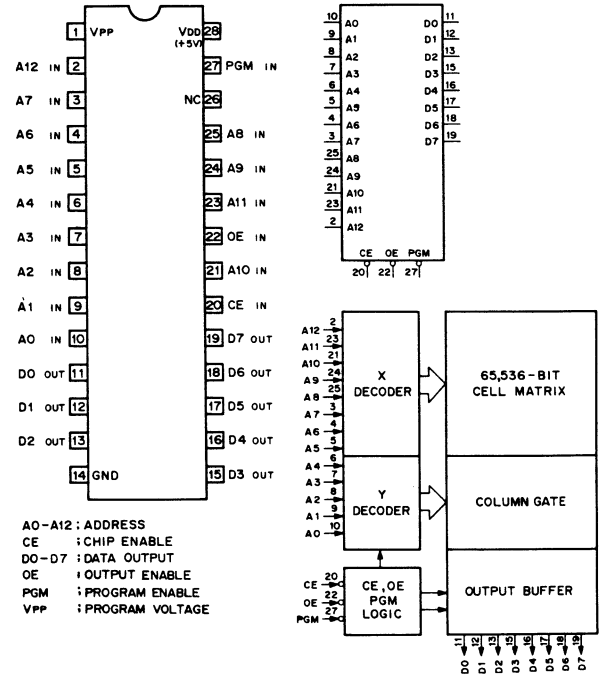
INPUTS				I/O		MODE
CS	WE	AR	ST			
1	X	1	1	HI-Z		NOT SELECTED
0	1	1	1	OUTPUT DATA		RAM READ
0	0	1	1	INPUT DATA 1		RAM WRITE "1"
0	0	1	1	INPUT DATA 0		RAM WRITE "0"
X	1	0	1	HI-Z		ARRAY RECALL
1	X	0	1	HI-Z		ARRAY RECALL
X	1	1	0	HI-Z		NONVOLATILE STORING
1	X	1	0	HI-Z		NONVOLATILE STORING

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
HI-Z; HIGH IMPEDANCE

An	CE	OE	Vpp	Dn	FUNCTION
An	0	0	+5V	D OUT	READ
An	0	1	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	HI-Z	STANDBY
An	0	1	+21V	D IN	PGM
An	0	0	+21V	D OUT	PGM VERIFY
X	1	X	+21V	HI-Z	PGM INH

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
HI-Z; HIGH IMPEDANCE

MBM2764-25 (FUJITSU) (ACCESS TIME = 250 nS)  
N-MOS 64K (8K-8) ERASABLE PROM WITH 3-STATE OUTPUTS  
— TOP VIEW —

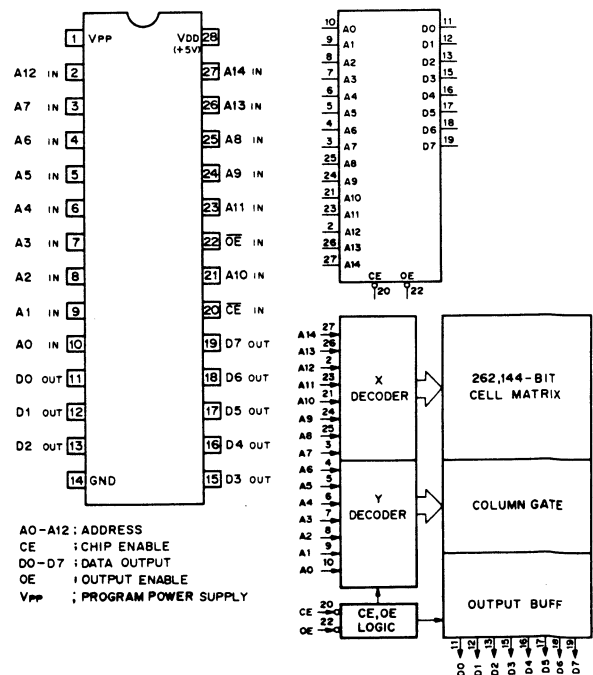


A0-A12: ADDRESS  
CE: CHIP ENABLE  
DO-D7: DATA OUTPUT  
OE: OUTPUT ENABLE  
PGM: PROGRAM ENABLE  
VPP: PROGRAM VOLTAGE

An	CE	OE	PGM	Vpp	Dn	FUNCTION
An	0	0	1	+5V	DENTERED	READ
An	0	1	1	+5V	HI-Z	OUTPUT DISABLE
An	0	0	0	+5V	HI-Z	OUTPUT DISABLE
X	1	X	X	+5V	HI-Z	STANDBY
An	0	X	1	+21V	D IN	PGM
An	0	0	1	+21V	DENTERED	PGM VERIFY
X	1	X	X	+21V	HI-Z	PGM INH

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
HI-Z; HIGH IMPEDANCE

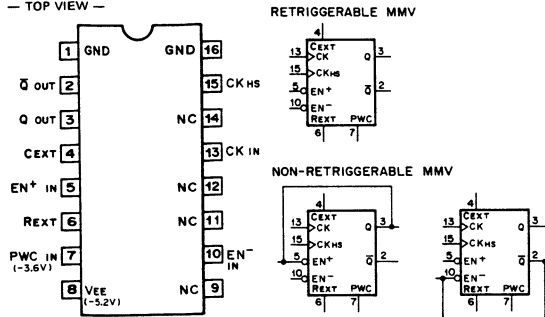
MBM27C256-25 (FUJITSU) (ACCESS TIME = 250 nS)  
C-MOS 256K (32K-8) ERASABLE PROM WITH 3-STATE OUTPUTS  
— TOP VIEW —



A0-A12: ADDRESS  
CE: CHIP ENABLE  
DO-D7: DATA OUTPUT  
OE: OUTPUT ENABLE  
Vpp: PROGRAM POWER SUPPLY



MC10198L (MOTOROLA)  
ECL RETRIGGERABLE MONOSTABLE MULTIVIBRATOR  
— TOP VIEW —



CK : CLOCK TRIGGER INPUT  
CKHS: HIGH-SPEED CLOCK TRIGGER INPUT  
EN+ : TRIGGER POSITIVE ENABLE  
EN- : TRIGGER NEGATIVE ENABLE  
PWC : EXTERNAL PULSE WIDTH CONTROL

FUNCTION TABLE

EN+	EN-	TRIG. SLOPE
0	0	
0	1	
1	0	
1	1	DISABLE

0; LOW LEVEL  
1; HIGH LEVEL

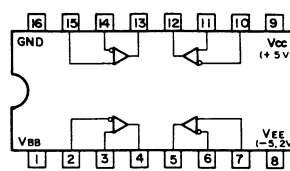
OUTPUT PULSE WIDTH: PWQ  
 $PWQ = 1.19 \cdot CEXT (REXT + 284)$

WHERE

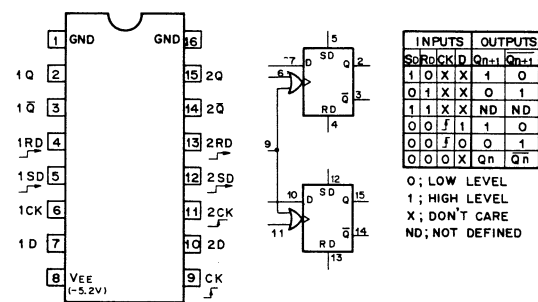
PWQ = SEC  
CEXT = FARADS  
REXT = OHMS  
VEE = -5.2V  
PWC = -3.6V

NOTE: - SELECT REXT RANGING FROM ZERO TO 16K OHMS.  
SELECT CEXT GREATER THAN 20PF.

MC10H125M (MOTOROLA) FLAT PACKAGE  
ECL ECL-TO-TTL TRANSLATOR  
— TOP VIEW —



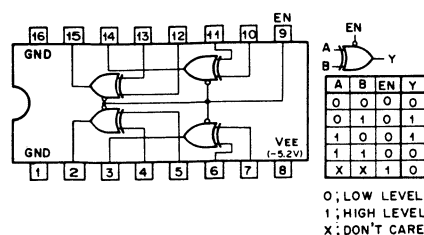
MC10H131M (MOTOROLA) FLAT PACKAGE  
ECL D-TYPE FLIP FLOP  
— TOP VIEW —



INPUTS	OUTPUTS
SD	Qn+1
RD	Qn
Qn	Qn+1
Qn+1	Qn
Qn	Qn
Qn+1	Qn+1
Qn	Qn
Qn+1	Qn+1

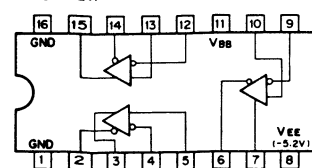
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
ND; NOT DEFINED

MC10H113M (MOTOROLA) FLAT PACKAGE  
ECL EXCLUSIVE OR GATE  
— TOP VIEW —

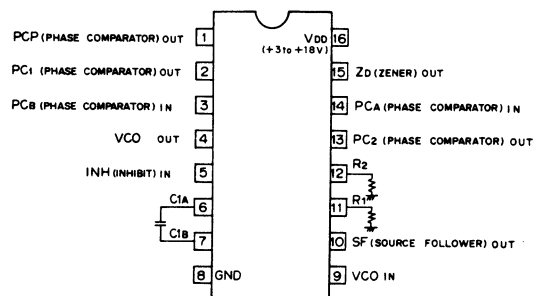


0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE

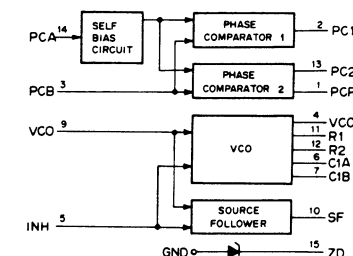
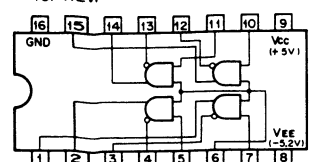
MC10H116M (MOTOROLA) FLAT PACKAGE  
ECL DIFFERENTIAL OR/NOR LINE RECEIVER  
— TOP VIEW —



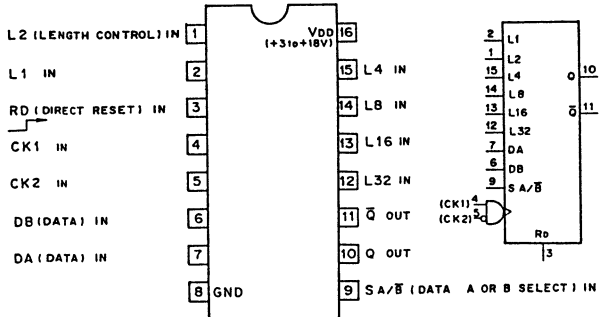
MC14046BCP (MOTOROLA)  
C-MOS PHASE LOCKED LOOP  
— TOP VIEW —



MC10H124M (MOTOROLA) FLAT PACKAGE  
ECL TTL-TO-ECL TRANSLATOR  
— TOP VIEW —







MC14557BF (MOTOROLA) FLAT PACKAGE  
C-MOS 1-TO-64-BIT VARIABLE LENGTH SHIFT REGISTER  
— TOP VIEW —



### LENGTH SELECT TRUTH TABLE

L32	L16	L8	L4	L2	L1	REGISTER LENGTH
0	0	0	0	0	1	1 - BIT
0	0	0	0	0	1	2 - BIT
0	0	0	0	1	0	3 - BIT
0	0	0	0	1	1	4 - BIT
0	0	0	1	0	0	5 - BIT
1	1	1	1	1	1	
1	1	1	1	1	0	61 - BIT
1	1	1	1	0	1	62 - BIT
1	1	1	1	1	0	63 - BIT
1	1	1	1	1	1	64 - BIT

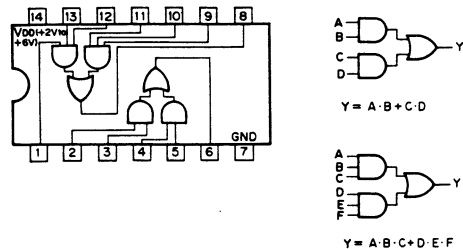
INPUTS				OUTPUT
RD	SA	CK1	CK2	Q
0	0		0	DB
0	1		0	DA
0	0	1		DB
0	1	1		DA
1	X	X	X	0

```

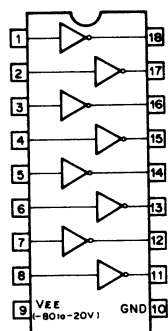
0 : LOW  LEVEL
1 : HIGH  LEVEL
X : DON'T CARE

```

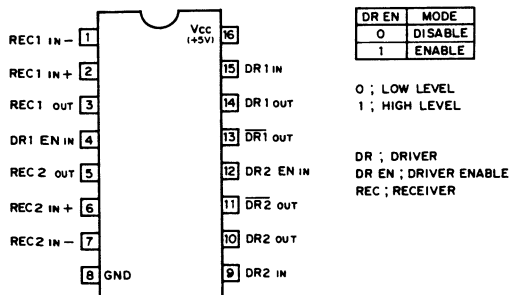
MC74HC58N (MOTOROLA)  
CMOS 2-WIDE 2-INPUT/3-INPUT AND-OR GATE  
— TOP VIEW —



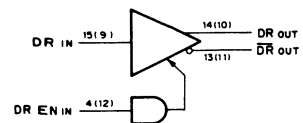
MSL917RS (OKI)  
VACUUM FLUORESCENT DISPLAY DRIVER  
— TOP VIEW —



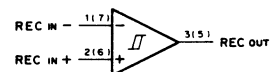
MC34051 P (MOTOROLA)  
RS-422 DRIVER/RECEIVER  
— TOP VIEW —



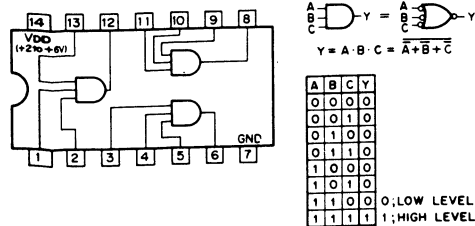
### DRIVER CIRCUIT



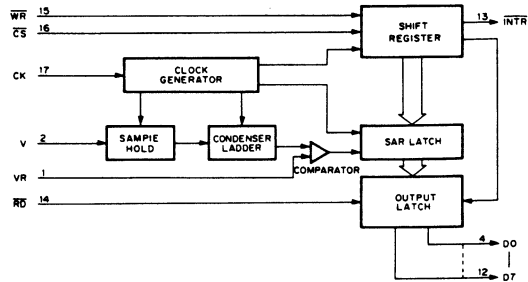
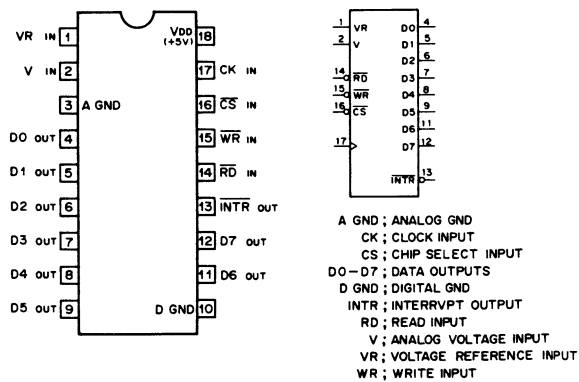
### RECEIVER CIRCUIT



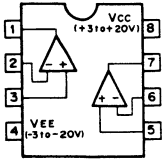
MC74HC11F (MOTOROLA) FLAT PACKAGE  
TC74HC11P (TOSHIBA)  
C-MOS 3-INPUT POSITIVE-AND GATE



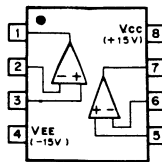
MSM5204ARS (OKI)  
C-MOS 8 BIT ANALOG TO DIGITAL CONVERTER  
— TOP VIEW —



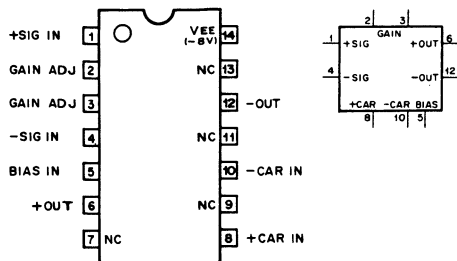
NE5532P (TI)  
LOW NOISE OPERATIONAL AMPLIFIER  
— TOP VIEW —



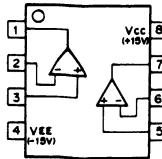
NJM082M (JRC) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
(J FET-INPUT)  
— TOP VIEW —



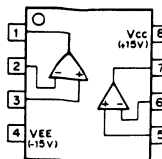
NJM1496M (JRC) FLAT PACKAGE  
BALANCED MODULATOR/DEMODULATOR  
— TOP VIEW —



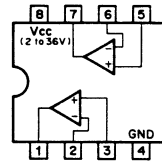
NJM2041M-D (JRC) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



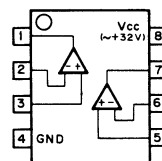
NJM2043DD (JRC)  
NJM2043M-D (JRC) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



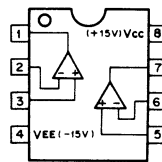
NJM2903D (JRC)  
NJM2903M (JRC) FLAT PACKAGE  
uPC393G2 (NEC) FLAT PACKAGE  
VOLTAGE COMPARATOR  
— TOP VIEW —



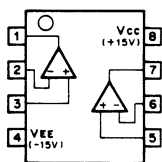
NJM4556D (JRC)  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



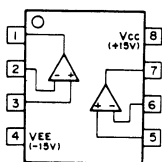
NJM4558D (JRC)  
NJM4558D-FA (JRC)  
NJM4558M (JRC) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



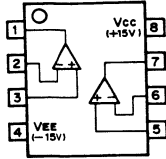
NJM4560DD (JRC)  
NJM4560M (JRC) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



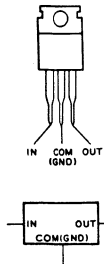
NJM4562D-D (JRC)  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



NJM5532M (JRC) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



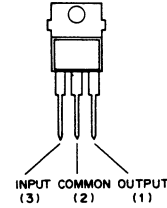
NJM78??A (JRC)  
POSITIVE VOLTAGE REGULATOR (1A)  
— SIDE VIEW —



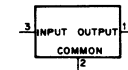
OUTPUT VOLTAGE	AN78??	FS78??	HA178??P	L78??	NJM78??B	NJM78??A/K
+5V	AN7805	FS7805	HA17805P	L7805	-----	NJM7805A/K
+6V	AN7806	-----	HA17806P	-----	-----	NJM7806A/K
+7V	AN7807	-----	HA17807P	L7807	-----	-----
+8V	AN7808	-----	HA17808P	-----	-----	NJM7808A/K
+8.5V	-----	-----	-----	-----	-----	NJM7809A/K
+9V	AN7809	-----	-----	-----	-----	-----
+10V	AN7810	-----	-----	-----	-----	-----
+12V	AN7812	FS7812	HA17812P	-----	NJM7812B	NJM7812A/K
+15V	AN7815	FS7815	HA17815P	-----	-----	NJM7815A/K
+18V	AN7818	-----	HA17818P	-----	-----	NJM7818A/K
+20V	AN7820	-----	-----	-----	-----	NJM7820A/K
+24V	AN7824	FS7824	HA17824P	-----	-----	NJM7824A/K

OUTPUT VOLTAGE	uA78??UC	uPC143??H	uPC78??H	TA78??P/AP
+5V	uA7805UC	uPC14305H	uPC7805H	TA78005P/AP
+6V	uA7806UC	-----	-----	TA78006P/AP
+7V	uA7807UC	-----	-----	-----
+8V	uA7808UC	uPC14308H	uPC7808H	TA78008P/AP
+8.5V	uA7885UC	-----	-----	-----
+9V	-----	-----	-----	TA78009P/AP
+10V	-----	-----	-----	TA78010P/AP
+12V	uA7812UC	uPC14312H	uPC7812H	TA78012P/AP
+15V	uA7815UC	uPC14315H	uPC7815H	TA78015P/AP
+18V	uA7818UC	uPC14318H	uPC7818H	TA78018P/AP
+20V	-----	-----	-----	TA78020P/AP
+24V	uA7824UC	uPC14324H	uPC7824H	TA78024P/AP

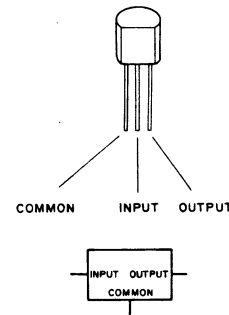
NJM78M??A (JRC)  
POSITIVE VOLTAGE REGULATOR (500mA)  
— FRONT VIEW —



5V	NJM78M05A
6V	NJM78M06A
8V	NJM78M08A
9V	NJM78M09A
12V	NJM78M12A
15V	NJM78M15A
18V	NJM78M18A
20V	NJM78M20A
24V	NJM78M24A

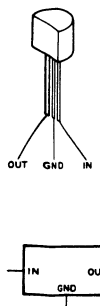


NJM79L??A (JRC)  
NEGATIVE VOLTAGE REGULATOR (100mA)  
— FRONT VIEW —



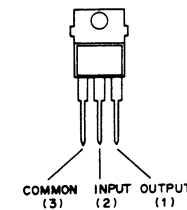
OUTPUT VOLTAGE	NJM79L??A
-3V	NJM79L03A
-4V	-----
-5V	NJM79L05A
-6V	NJM79L06A
-7V	-----
-8V	NJM79L08A
-9V	NJM79L09A
-10V	-----
-12V	NJM79L12A
-15V	NJM79L15A
-18V	NJM79L18A
-20V	-----
-24V	NJM79L24A

NJM78L??A (NEC)  
POSITIVE VOLTAGE REGULATOR (100mA)

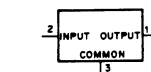


OUTPUT VOLTAGE	NJM78L??A	uA78L??ACL	uA78L??AWV	uPC78L??J	AN78L??
+2.6V	NJM78L02A	uA78L02ACL	uA78L26AWV	-----	-----
+4V	-----	-----	-----	-----	AN78L04
+5V	NJM78L05A	uA78L05ACL	uA78L05AWV	uPC78L05J	AN78L05
+6V	NJM78L06A	-----	-----	-----	AN78L06
+6.2V	-----	uA78L06ACL	uA78L62AWV	-----	-----
+7V	-----	-----	-----	-----	AN78L07
+8V	NJM78L08A	uA78L08ACL	-----	uPC78L08J	AN78L08
+8.2V	-----	-----	uA78L82AWV	-----	-----
+9V	NJM78L09A	uA78L09ACL	uA78L09AWV	-----	AN78L09
+10V	-----	uA78L10ACL	uA78L10AWV	uPC78L10J	AN78L10
+12V	NJM78L12A	uA78L12ACL	uA78L12AWV	uPC78L12J	AN78L12
+15V	NJM78L15A	uA78L15ACL	uA78L15AWV	uPC78L15J	AN78L15
+18V	NJM78L18A	-----	uA78L18AWV	-----	AN78L18
+20V	NJM78L20A	-----	-----	-----	AN78L20
+24V	NJM78L24A	-----	uA78L24AWV	-----	AN78L24

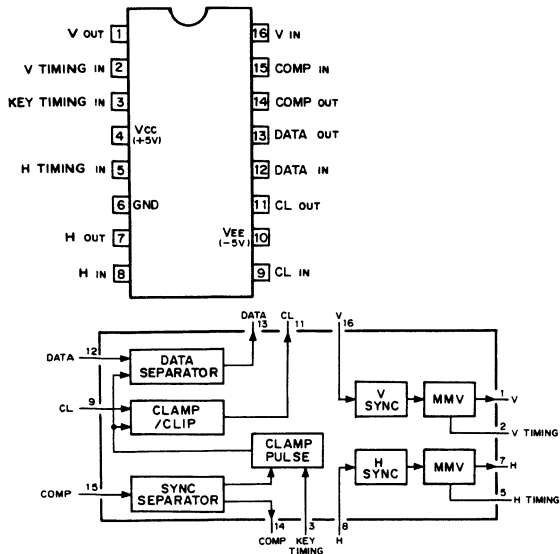
NJM79M??A (JRC)  
NEGATIVE VOLTAGE REGULATOR (500mA)  
— FRONT VIEW —



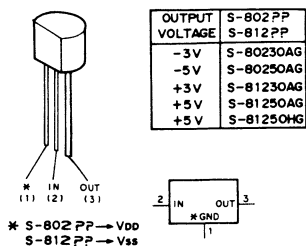
-5V	NJM79M05A
-6V	NJM79M06A
-8V	NJM79M08A
-9V	NJM79M09A
-12V	NJM79M12A
-15V	NJM79M15A
-18V	NJM79M18A
-24V	NJM79M24A



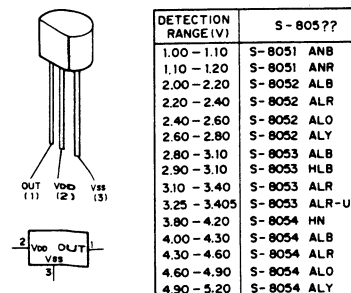
PA0009 (PIONEER)  
SIGNAL SEPARATOR  
— TOP VIEW —



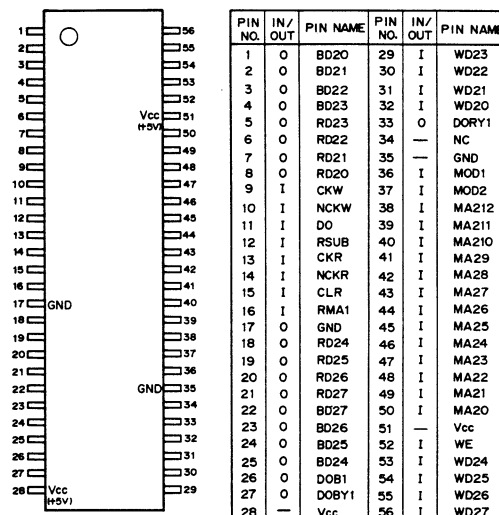
S-802?? (SEIKO I AND E)  
C-MOS VOLTAGE REGULATOR



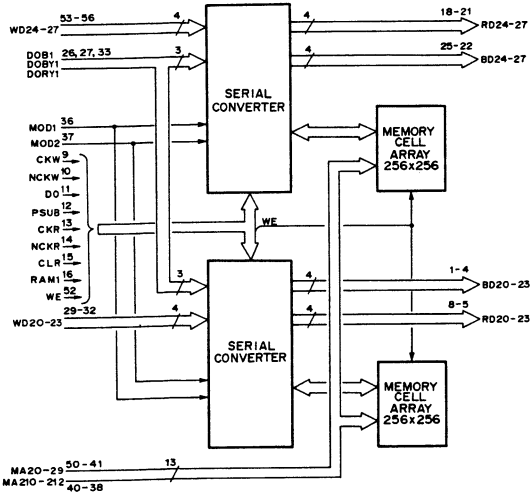
S-805?? (SEIKO I AND E)  
VOLTAGE DETECTOR



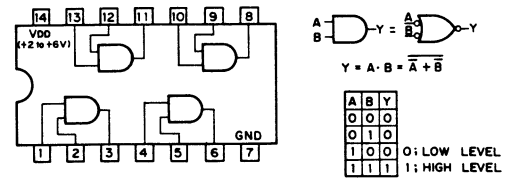
SBX4001-01 (FUJITSU)  
32 LINE MEMORY  
— TOP VIEW —



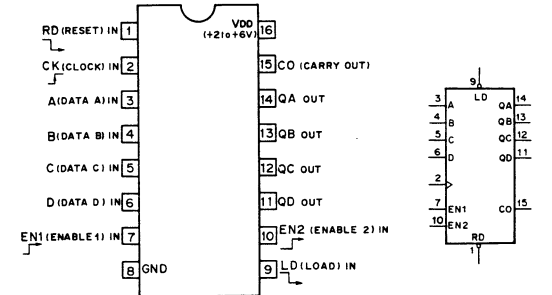
PIN NO.	IN/OUT	PIN NAME	PIN NO.	IN/OUT	PIN NAME
1	O	BD20	29	I	WD23
2	O	BD21	30	I	WD22
3	O	BD22	31	I	WD21
4	O	BD23	32	I	WD20
5	O	RD23	33	O	DORY1
6	O	RD22	34	—	NC
7	O	RD21	35	—	GND
8	O	RD20	36	I	MOD1
9	I	CKW	37	I	MOD2
10	I	NCKW	38	I	MA212
11	I	DO	39	I	MA211
12	I	RSUB	40	I	MA210
13	I	CKR	41	I	MA29
14	I	NCKR	42	I	MA28
15	I	CLR	43	I	MA27
16	I	RMA1	44	I	MA26
17	O	GND	45	I	MA25
18	O	RD24	46	I	MA24
19	O	RD25	47	I	MA23
20	O	RD26	48	I	MA22
21	O	RD27	49	I	MA21
22	O	BD27	50	I	MA20
23	O	BD26	51	—	Vcc
24	O	BD25	52	I	WE
25	O	BD24	53	I	WD24
26	O	DOB1	54	I	WD25
27	O	DOBY1	55	I	WD26
28	—	Vcc (+5V)	56	I	WD27



SN74HC08 NS (TI) FLAT PACKAGE  
TC74HC08F (TOSHIBA) FLAT PACKAGE  
TC74HC08P (TOSHIBA)  
C-MOS 2-INPUT AND GATE  
— TOP VIEW —



SN74HC161 NS (TI) FLAT PACKAGE  
C-MOS SYNCHRONOUS PRESETTABLE 4-BIT BINARY COUNTER  
— TOP VIEW —

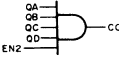


MODE SELECTION

CONTROL INPUT				MODE
RD	LD	EN1	EN2	
0	X	X	X	RESET (ASYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

CARRY OUTPUT "CO"

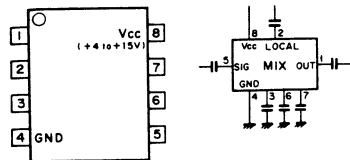


CO IS HIGH WHEN EN2 INPUT IS HIGH AND COUNT IS "15".

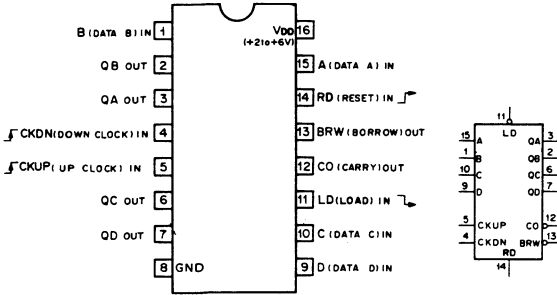
COUNT SEQUENCE

COUNT	OUTPUT			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

SN16913P (TI)  
BALANCED MIXER  
— TOP VIEW —



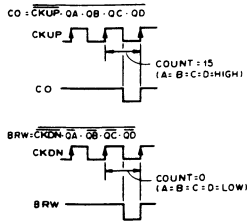
**SN74HC193NS (TI) FLAT PACKAGE**  
C-MOS PRESETTABLE SYNCHRONOUS 4-BIT UP/DOWN COUNTER  
— TOP VIEW —



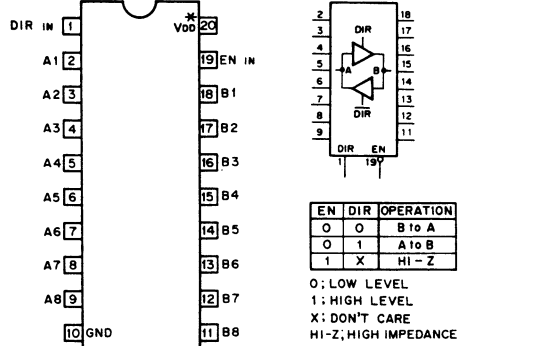
CONTROL INPUT				MODE	
RD	LD	CKUP	CKDN		
1	X	X	X	RESET TO ZERO	
0	0	X	X	PRESET	
0	1	↑	1	UP COUNT	
0	1	1	↓	DOWN COUNT	
0	1	1	1	NO COUNT	

COUNT	OUTPUT			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE



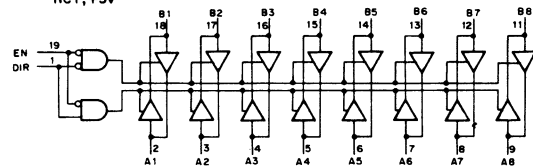
**SN74HC245NS (TI) FLAT PACKAGE**  
TC74HC245P (TOSHIBA)  
C-MOS BILATERAL BUS TRANSCEIVERS WITH 3-STATE OUTPUT  
— TOP VIEW —



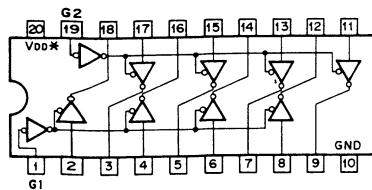
EN	DIR	OPERATION
0	0	B to A
0	1	A to B
1	X	HI-Z

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE  
HI-Z: HIGH IMPEDANCE

\* VDD: HC: +2 to +6V  
HCT: +5V



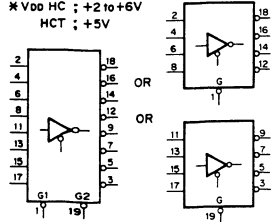
**SN74HC240NS (TI) FLAT PACKAGE**  
C-MOS 3-STATE INVERTER/LINE DRIVER  
— TOP VIEW —



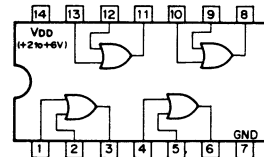
G	A	Y
0	0	1
0	1	0
1	X	HI-Z

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE  
HI-Z: HIGH IMPEDANCE

\* VDD: HC: +2 to +6V  
HCT: +5V



**SN74HC32NS (TI) FLAT PACKAGE**  
TC74HC32F (TOSHIBA) FLAT PACKAGE  
TC74HC32P (TOSHIBA)  
C-MOS 2-INPUT OR GATE  
— TOP VIEW —

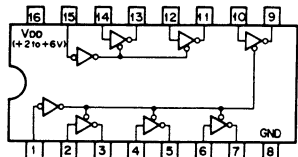


$$Y = A + B = \overline{A \cdot B}$$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

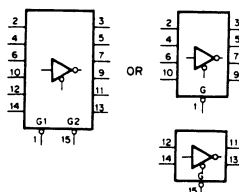
0: LOW LEVEL  
1: HIGH LEVEL

**SN74HC368NS (TI) FLAT PACKAGE**  
C-MOS BUS INVERTER WITH 3-STATE OUTPUTS  
— TOP VIEW —

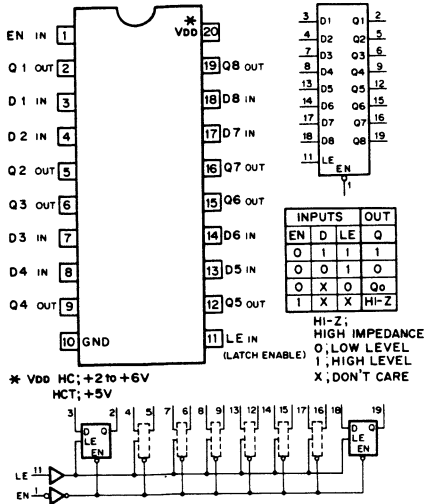


G	A	Y
0	0	1
0	1	0
1	X	HI-Z

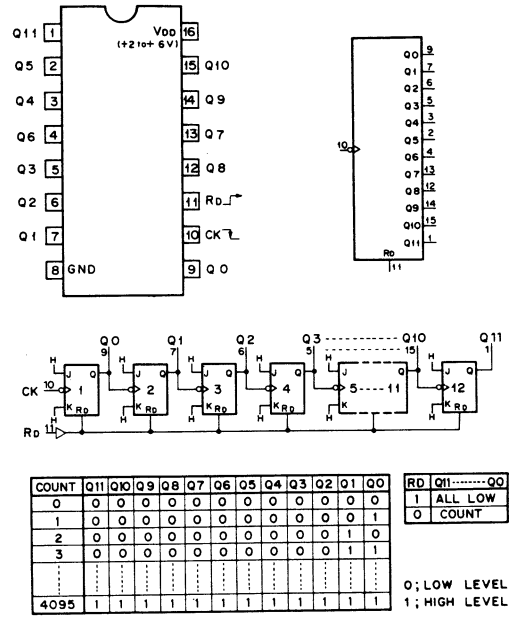
0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE  
HI-Z: HIGH IMPEDANCE



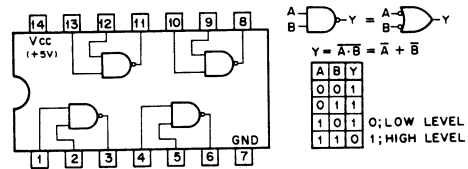
SN74HC373 (TI)  
SN74HC373NS (TI) FLAT PACKAGE  
C-MOS 3-STATE OCTAL LATCHES  
— TOP VIEW —



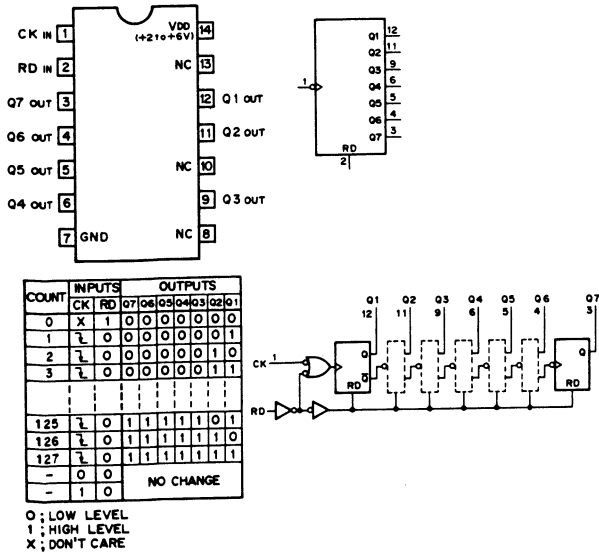
SN74HC4040NS (TI) FLAT PACKAGE  
C-MOS 12-STAGE RIPPLE CARRY BINARY COUNTER/DRIVER  
— TOP VIEW —



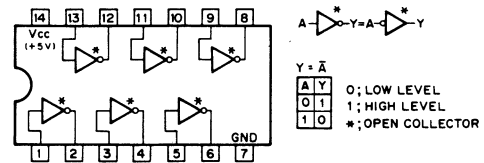
SN74LS00NS (TI) FLAT PACKAGE  
TTL 2-INPUT POSITIVE-NAND GATE  
— TOP VIEW —



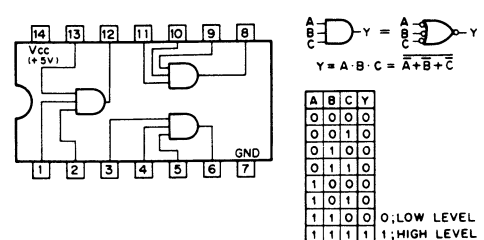
SN74HC4024NS (TI) FLAT PACKAGE  
C-MOS 7-BIT BINARY COUNTERS



SN74LS06N (TI)  
SN74LS06NS (TI) FLAT PACKAGE  
TTL INVERTER BUFFER/DRIVER WITH OPEN-COLLECTOR  
— TOP VIEW —

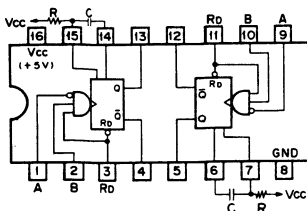


SN74LS11NS (TI) FLAT PACKAGE  
TTL 3-INPUT POSITIVE-AND GATE  
— TOP VIEW —





SN74LS123N (TI)  
SN74LS123NS (TI) FLAT PACKAGE  
TTL RETRIGGERABLE MONOSTABLE MULTIVIBRATOR WITH DIRECT RESET  
— TOP VIEW —



INPUTS		OUTPUTS	
Rd	A	Q	Q
0	X	X	0
1	0	1	1
1	1	0	1
1	1	1	1

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE

OUTPUT PULSE WIDTH

$$t_{123}; T_w = 0.28 \left(1 + \frac{700}{R}\right) CR$$

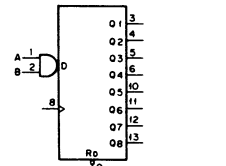
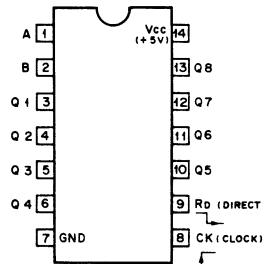
$$t_{123}; T_w = 0.33 \left(1 + \frac{700}{R}\right) CR$$

$$t_{123}; T_w = 0.25 \left(1 + \frac{700}{R}\right) CR$$

$$t_{123}; T_w = 0.29 \left(1 + \frac{700}{R}\right) CR$$

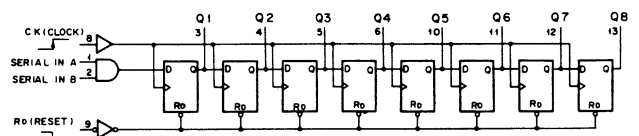
$$t_{123}; T_w = 0.45 CR$$

SN74LS164NS (TI) FLAT PACKAGE  
TTL 8-BIT PARALLEL-OUT SERIAL SHIFT REGISTER  
— TOP VIEW —

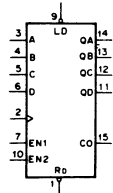
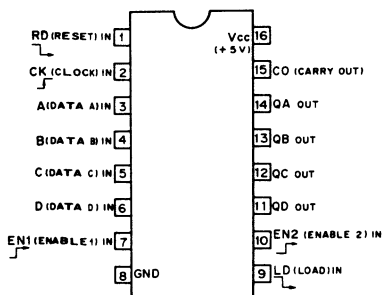


INPUTS		OUTPUTS	
Rd	CK	Q1	Q2
0	X	X	0
1	0	1	1
1	1	0	1
1	1	1	1

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE



SN74LS163ANS (TI) FLAT PACKAGE  
TTL PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER  
— TOP VIEW —

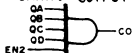


#### MODE SELECTION

CONTROL	LD	EN1	EN2	MODE
0	X	X	X	RESET (SYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE

CARRY OUTPUT "CO"

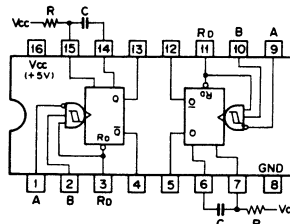


CO IS HIGH WHEN EN2 INPUT IS HIGH AND COUNT IS "15"

#### COUNT SEQUENCE

COUNT	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

SN74LS221NS (TI) FLAT PACKAGE  
TTL MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT  
— TOP VIEW —

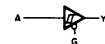
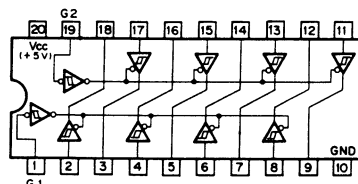


INPUTS		OUTPUTS	
Rd	A	Q1	Q2
0	X	X	0
1	0	1	1
1	1	0	1
1	1	1	1

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE

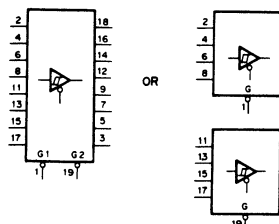
OUTPUT PULSE WIDTH = 0.7CR

SN74LS244N (TI)  
TTL 3-STATE SCHMITT TRIGGER BUFFER/DRIVER  
— TOP VIEW —

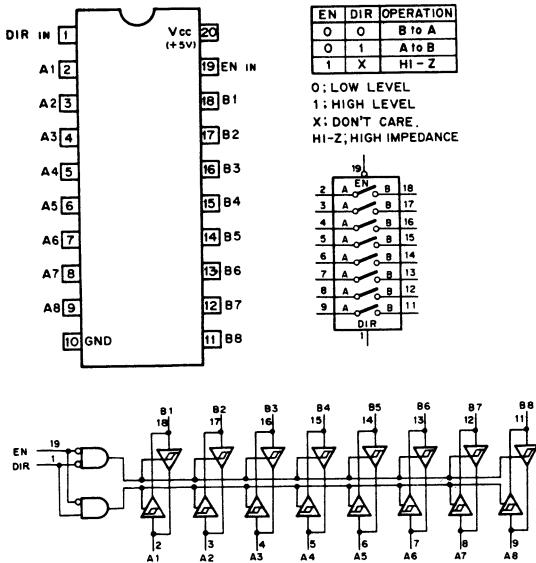


G	A	Y
0	0	0
0	1	1
1	X	Hi-Z

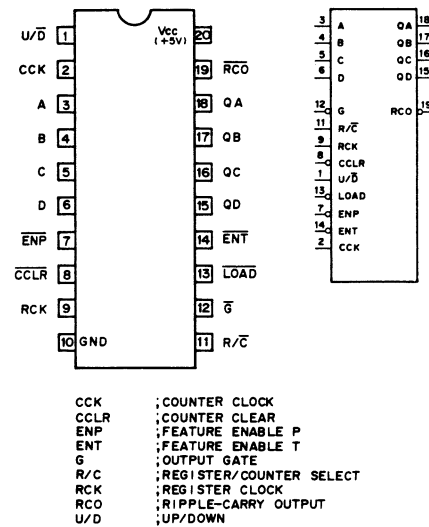
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
Hi-Z; HIGH IMPEDANCE



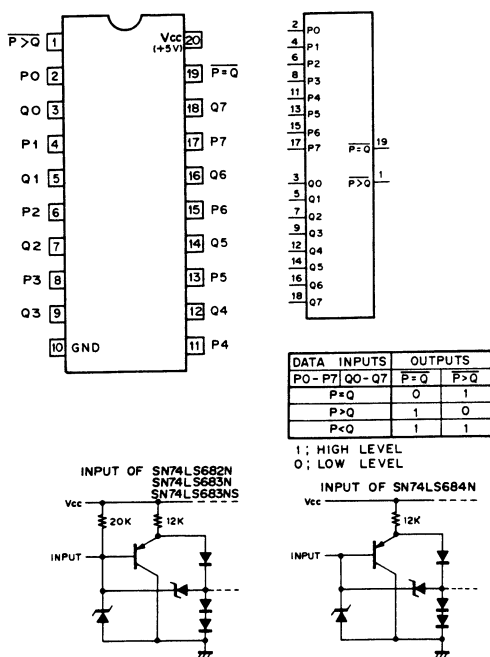
SN74LS245N (TI)  
TTL BILATERAL SCHMITT TRIGGER BUS TRANSCEIVERS WITH 3-STATE OUTPUT  
— TOP VIEW —



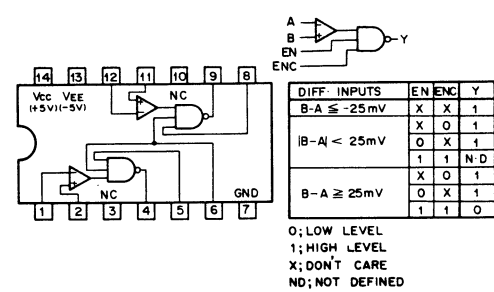
SN74LS697N  
TTL SYNCHRONOUS UP/DOWN COUNTERS WITH OUTPUT REGISTERS AND MULTIPLEXED 3-STATE OUTPUTS  
(BINARY COUNTER, DIRECT CLEAR)  
— TOP VIEW —



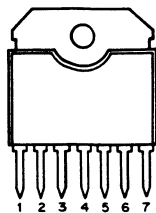
SN74LS683NS (TI) FLAT PACKAGE  
TTL 8-BIT MAGNITUDE COMPARATOR  
WITH TOTEM-POLE OUTPUTS  
— TOP VIEW —



SN75107AN (TI)  
LINE RECEIVER  
— TOP VIEW —

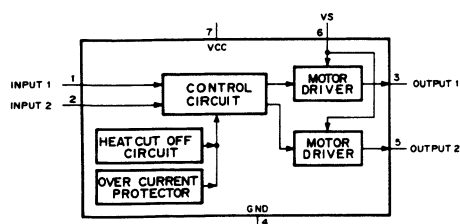


TA7267P (TOSHIBA)  
DC MOTOR DRIVER  
— PRINTED SIDE VIEW —

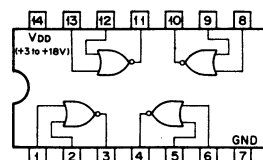


INPUTS/OUTPUTS			MODE
1	2	1 2	
1	1	0 0	BRAKE
0	1	0 1	ROTATION / REV. ROTATION
1	0	1 0	REV. ROTATION / ROTATION
0	0	HI-Z	STOP

0 : LOW LEVEL  
1 : HIGH LEVEL  
HI-Z : HIGH IMPEDANCE



TC4001BF (TOSHIBA) FLAT PACKAGE  
TC4001BP (TOSHIBA)  
C-MOS 2-INPUT NOR GATE  
— TOP VIEW —

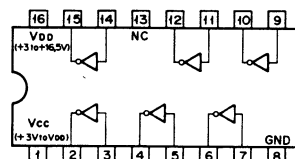


$A \text{ NOR } B = \overline{A \cdot B}$   
 $Y = \overline{A + B} = \overline{A} \cdot \overline{B}$

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

0: LOW LEVEL  
1: HIGH LEVEL

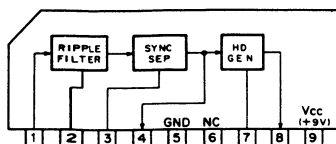
TC4009UBP (TOSHIBA)  
C-MOS INVERTING TYPE BUFFER/CONVERTER (TO TTL LEVEL)  
— TOP VIEW —



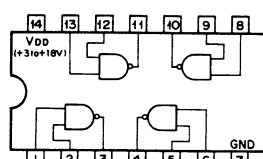
$A \text{ INVERTER } = \overline{A}$

A	Y
0	1
1	0

TA7357AP (TOSHIBA)  
SYNC SEPARATOR/HD PULSE GENERATOR  
— SIDE VIEW —



TC4011BF (TOSHIBA) FLAT PACKAGE  
C-MOS 2-INPUT NAND GATE  
— TOP VIEW —

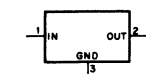
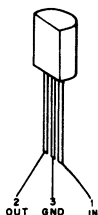


$A \text{ NAND } B = \overline{A \cdot B}$   
 $Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

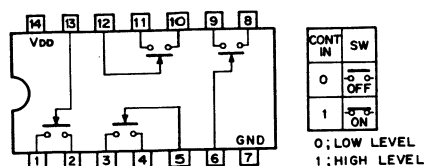
0: LOW LEVEL  
1: HIGH LEVEL

TA78L??AP (TOSHIBA)  
POSITIVE VOLTAGE REGULATOR (150mA)

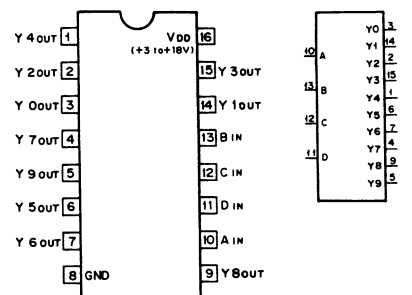


OUTPUT VOLTAGE	PPP
+5V	005
+6V	006
+7V	007
+7.5V	075
+8V	008
+9V	009
+10V	010
+12V	012
+13.2V	132
+15V	015
+18V	018
+20V	020
+24V	024

TC4016BP (TOSHIBA)  
C-MOS BILATERAL SWITCH  
— TOP VIEW —



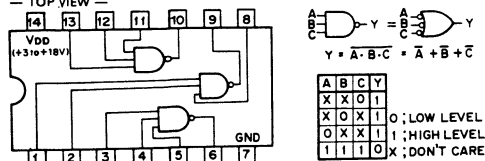
TC4028BF (TOSHIBA) FLAT PACKAGE  
C-MOS BCD TO DECIMAL DECODER  
— TOP VIEW —



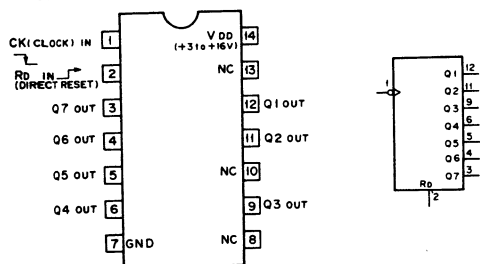
STATE	INPUTS				OUTPUTS									
	D	C	B	A	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	1	0	0	0	0	0	0	0	0
2	0	0	1	0	0	0	1	0	0	0	0	0	0	0
3	0	0	1	1	0	0	0	1	0	0	0	0	0	0
4	0	1	0	0	0	0	0	0	1	0	0	0	0	0
5	0	1	0	1	0	0	0	0	0	1	0	0	0	0
6	0	1	1	0	0	0	0	0	0	0	1	0	0	0
7	0	1	1	1	0	0	0	0	0	0	0	1	0	0
8	1	X	X	0	0	0	0	0	0	0	0	0	1	0
9	1	X	X	1	0	0	0	0	0	0	0	0	0	1

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE

TC4023BF (TOSHIBA) FLAT PACKAGE  
C-MOS 3-INPUT NAND GATE  
— TOP VIEW —

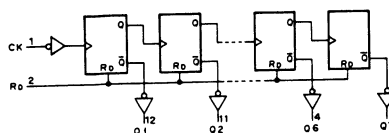


TC4024BF (TOSHIBA) FLAT PACKAGE  
C-MOS ASYNCHRONOUS 7-BIT BINARY COUNTER  
— TOP VIEW —

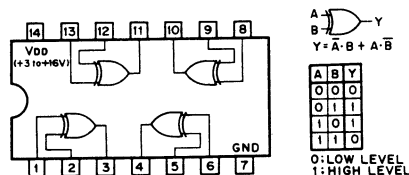


COUNT	INPUTS		OUTPUTS						
	CK	RD	Q7	Q6	Q5	Q4	Q3	Q2	Q1
0	X	1	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	1
2	1	0	0	0	0	0	0	1	0
3	1	0	0	0	0	0	1	0	0
4	1	0	0	0	0	1	0	0	0
5	1	0	0	0	1	0	0	0	0
6	1	0	0	1	0	0	0	0	0
7	1	0	0	1	0	0	0	0	1
8	1	0	1	0	0	0	0	0	0
9	1	0	1	0	0	0	0	1	0
10	1	0	1	0	1	0	0	0	0
11	1	0	1	1	0	0	0	0	0
12	1	0	1	1	0	1	0	0	0
13	1	0	1	1	1	0	0	0	0
14	1	0	1	1	1	1	0	0	0
15	1	0	1	1	1	1	1	0	0
16	1	0	1	1	1	1	1	1	0
17	1	0	1	1	1	1	1	1	1
18	0	0	0	0	0	0	0	0	0
19	1	0	NO CHANGE	NO CHANGE	NO CHANGE	NO CHANGE	NO CHANGE	NO CHANGE	NO CHANGE

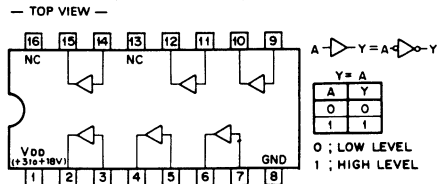
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE



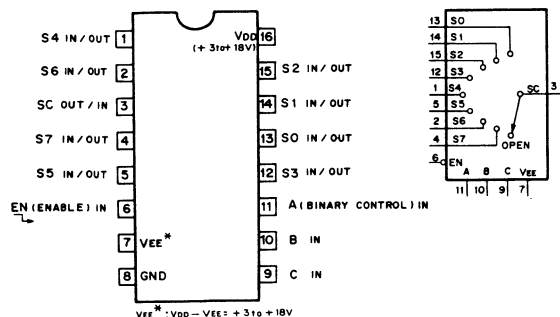
TC4030BF (TOSHIBA) FLAT PACKAGE  
TC4030BP (TOSHIBA)  
C-MOS EXCLUSIVE OR GATE  
— TOP VIEW —



TC4050BF (TOSHIBA) FLAT PACKAGE  
TC4050BP (TOSHIBA)  
C-MOS NON-INVERTING TYPE BUFFER/CONVERTER  
— TOP VIEW —



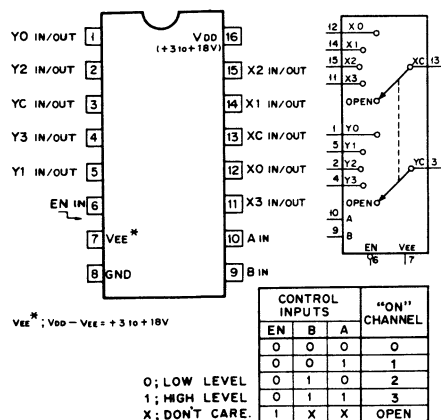
TC4051BF (TOSHIBA) FLAT PACKAGE  
C-MOS 8-CHANNEL MULTIPLEXER/DEMULTIPLEXER  
— TOP VIEW —



EN	C	B	A	"ON" CHANNEL
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7
1	X	X	X	OPEN

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

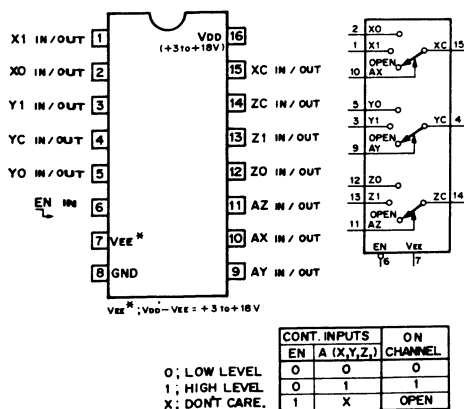
TC4052BF (TOSHIBA) FLAT PACKAGE  
C-MOS 4-CHANNEL MULTIPLEXER/DEMULTIPLEXER  
— TOP VIEW —



CONTROL INPUTS	EN	B	A	"ON" CHANNEL
0	0	0	0	0
0	0	0	1	1
0	1	0	0	2
0	1	1	0	3
1	X	X	X	OPEN

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE.

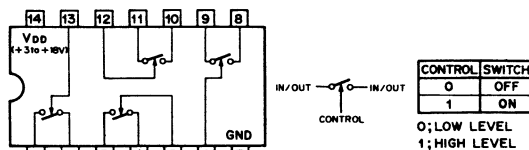
TC4053BF (TOSHIBA) FLAT PACKAGE  
TC4053BP (TOSHIBA)  
C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER  
— TOP VIEW —



CONT. INPUTS	EN	A (X,Y,Z)	ON CHANNEL
0	0	0	0
0	1	0	1
1	X	X	OPEN

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE.

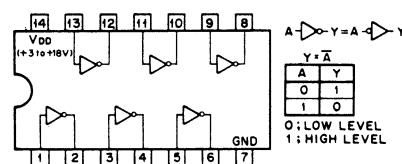
TC4066BF (TOSHIBA)  
C-MOS BILATERAL ANALOG SWITCH  
— TOP VIEW —



CONTROL	SWITCH
0	OFF
1	ON

0: LOW LEVEL  
1: HIGH LEVEL

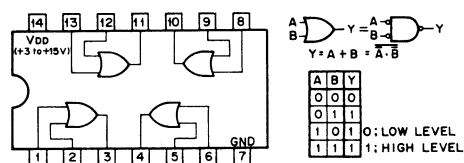
TC4069UBF (TOSHIBA) FLAT PACKAGE  
TC4069UBP (TOSHIBA)  
C-MOS INVERTER  
— TOP VIEW —



A	Y
0	1
1	0

0: LOW LEVEL  
1: HIGH LEVEL

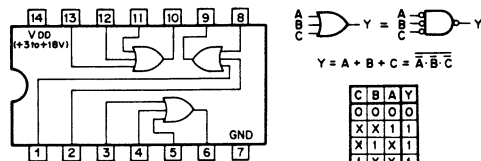
TC4071BF (TOSHIBA) FLAT PACKAGE  
TC4071BP (TOSHIBA)  
C-MOS 2-INPUT OR GATE  
— TOP VIEW —



A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0: LOW LEVEL  
1: HIGH LEVEL

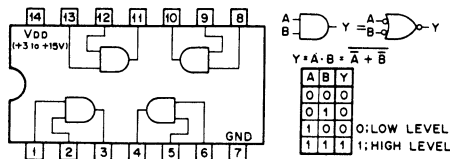
TC4075BF (TOSHIBA) FLAT PACKAGE  
C-MOS 3-INPUT OR GATE  
— TOP VIEW —



A	B	C	Y
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	1

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

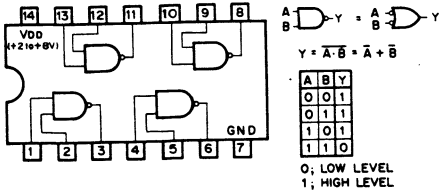
TC4081BF (TOSHIBA) FLAT PACKAGE  
C-MOS 2-INPUT AND GATE  
— TOP VIEW —



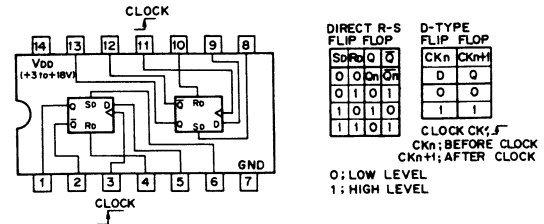
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0: LOW LEVEL  
1: HIGH LEVEL

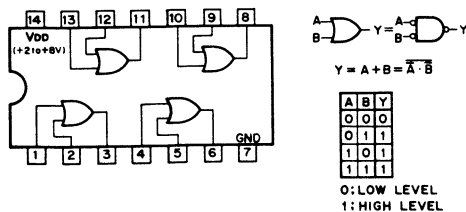
TC40H000F (TOSHIBA) FLAT PACKAGE  
C-MOS 2-INPUT NAND GATE  
— TOP VIEW —



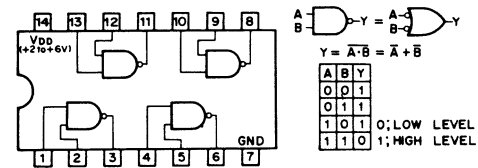
TC504013BF (TOSHIBA) FLAT PACKAGE  
C-MOS D-TYPE FLIP FLOP WITH DIRECT SET/RESET  
— TOP VIEW —



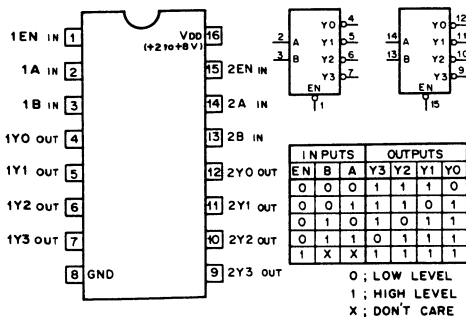
TC40H032F (TOSHIBA) FLAT PACKAGE  
C-MOS 2-INPUT POSITIVE-OR GATE  
— TOP VIEW —



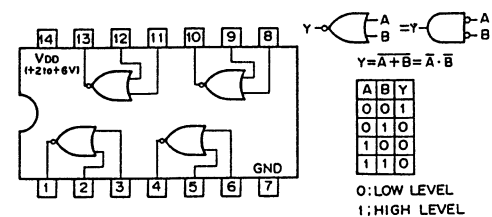
TC74HC00F (TOSHIBA) FLAT PACKAGE  
TC74HC00P (TOSHIBA)  
C-MOS 2-INPUT NAND GATE  
— TOP VIEW —



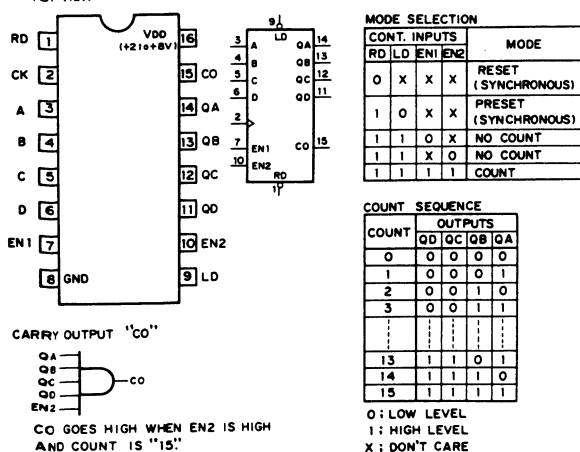
TC40H139F (TOSHIBA) FLAT PACKAGE  
C-MOS 2-TO-4-LINE DECODER/DEMULTIPLEXER  
— TOP VIEW —



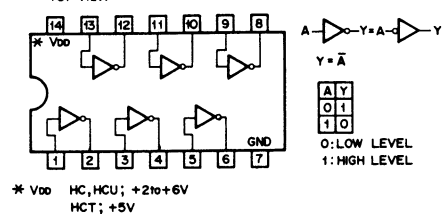
TC74HC02F (TOSHIBA) FLAT PACKAGE  
TC74HC02P (TOSHIBA)  
uPD74HC02C (NEC)  
C-MOS 2-INPUT POSITIVE-NOR GATE  
— TOP VIEW —



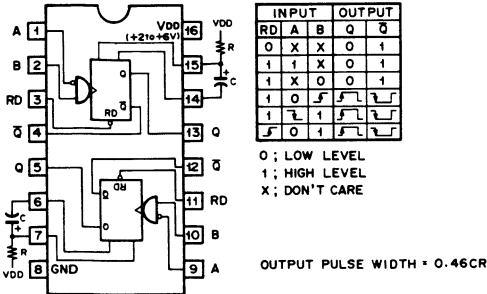
TC40H163F (TOSHIBA) FLAT PACKAGE  
C-MOS PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER  
— TOP VIEW —



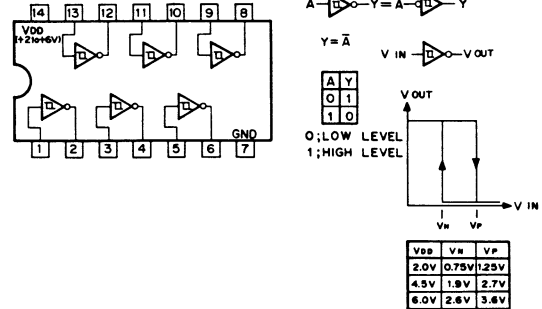
TC74HC04F (TOSHIBA) FLAT PACKAGE  
TC74HC04P (TOSHIBA)  
TC74HC04F (TOSHIBA) FLAT PACKAGE  
TC74HC04P (TOSHIBA)  
C-MOS INVERTER  
— TOP VIEW —



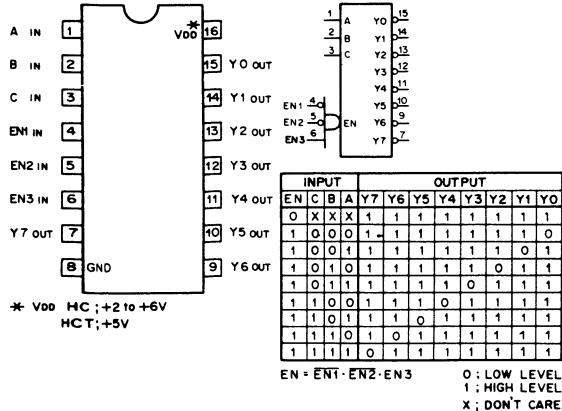
TC74HC123F (TOSHIBA) FLAT PACKAGE  
C-MOS DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATOR  
— TOP VIEW —



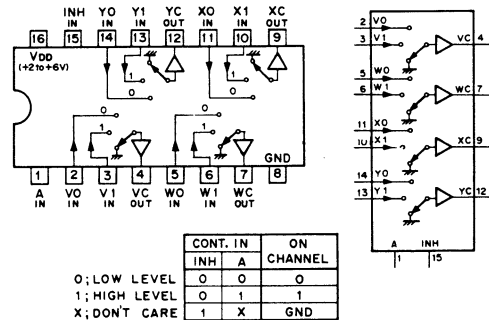
TC74HC14F (TOSHIBA) FLAT PACKAGE  
TC74HC14P (TOSHIBA)  
C-MOS SCHMITT TRIGGER INVERTER  
— TOP VIEW —



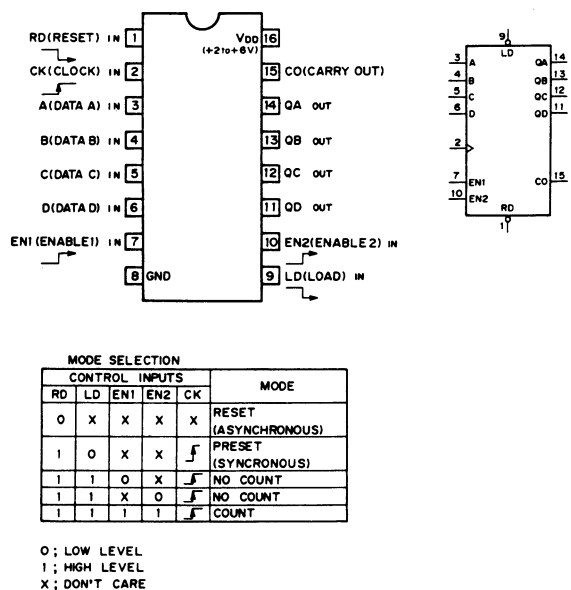
TC74HC138F (TOSHIBA) FLAT PACKAGE  
TC74HC138P (TOSHIBA)  
C-MOS 3-TO-8 LINE DECODER/DEMULTEPlexer  
— TOP VIEW —



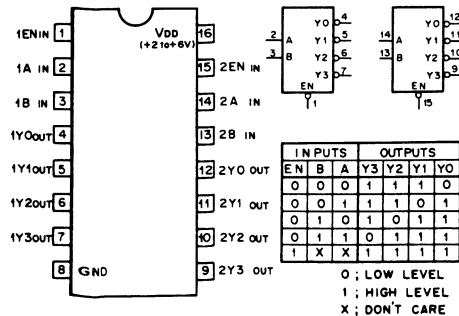
TC74HC157P (TOSHIBA)  
C-MOS 2-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER  
— TOP VIEW —



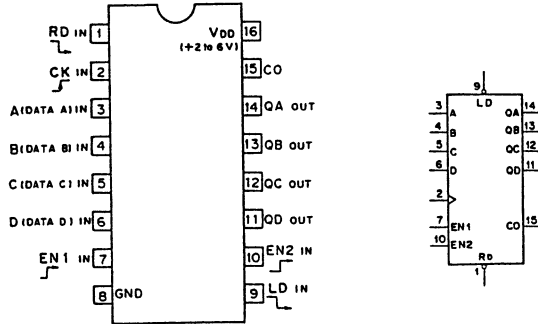
TC74HC160F (TOSHIBA) FLAT PACKAGE  
C-MOS SYNCHRONOUS PRESETTABLE 4-BIT DECADE COUNTER  
— TOP VIEW —



TC74HC139F (TOSHIBA) FLAT PACKAGE  
TC74HC139P (TOSHIBA)  
C-MOS 1-OF-4 DECODER/DEMULTEPlexer  
— TOP VIEW —



TC74HC163F (TOSHIBA) FLAT PACKAGE  
C-MOS PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER  
— TOP VIEW —

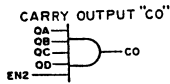


MODE SELECTION

CONTROL INPUTS				MODE
Rd	LD	EN1	EN2	
0	X	X	X	RESET (SYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

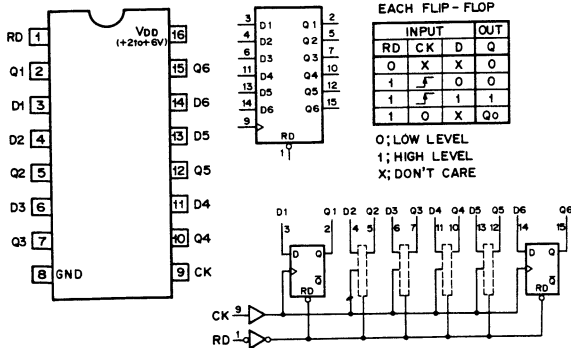
COUNT SEQUENCE

COUNT	OD	OC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1



CO IS HIGH WHEN EN2 INPUT IS HIGH AND COUNT IS "15".

TC74HC174F (TOSHIBA) FLAT PACKAGE  
C-MOS D-TYPE FLIP-FLOP WITH RESET  
— TOP VIEW —

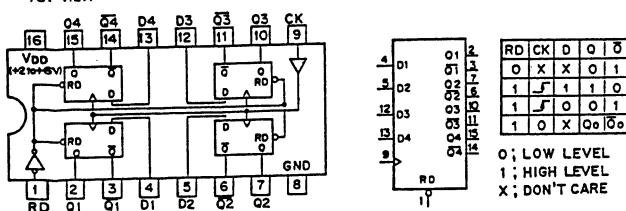


EACH FLIP-FLOP

INPUT	RD	CK	D	Q
0	X	X	0	0
1	1	1	0	0
1	1	1	1	1
1	0	X	Q	Q

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE

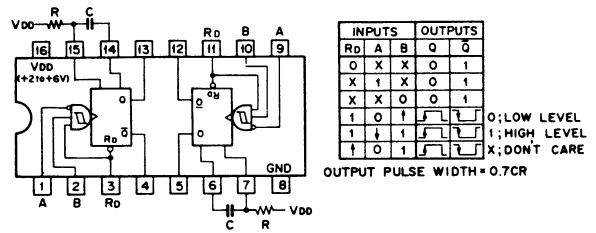
TC74HC175F (TOSHIBA) FLAT PACKAGE  
C-MOS D-TYPE FLIP-FLOP WITH RESET  
— TOP VIEW —



INPUT	RD	CK	D	Q
0	X	X	0	0
1	1	1	0	0
1	1	1	1	1
1	0	X	Q	Q

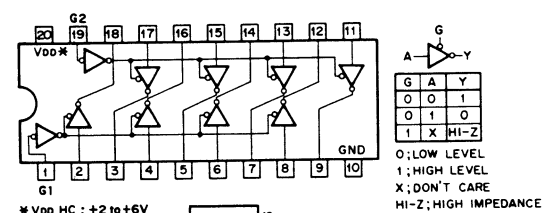
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE

TC74HC221F (TOSHIBA) FLAT PACKAGE  
C-MOS MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT  
— TOP VIEW —



OUTPUT PULSE WIDTH = 0.7CR

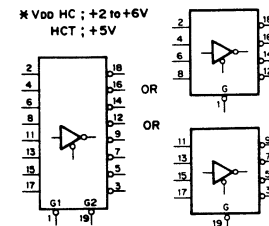
TC74HC240P (TOSHIBA)  
C-MOS 3-STATE INVERTER/LINE DRIVER  
— TOP VIEW —



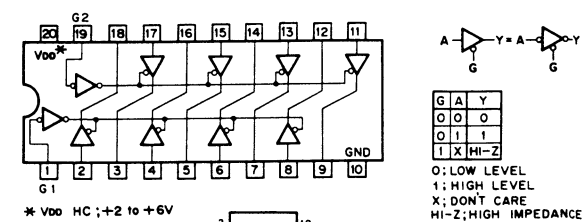
G	A	Y
0	0	1
0	1	0
1	X	HI-Z

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
HI-Z; HIGH IMPEDANCE

\* VDD HC; +2 to +6V  
HCT; +5V



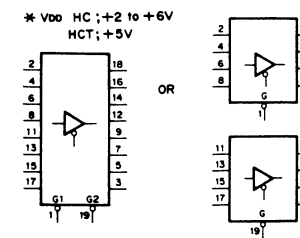
TC74HC244F (TOSHIBA) FLAT PACKAGE  
TC74HC244P (TOSHIBA)  
C-MOS BUS BUFFER WITH 3-STATE OUTPUT  
— TOP VIEW —



G	A	Y
0	0	0
0	1	1
1	X	HI-Z

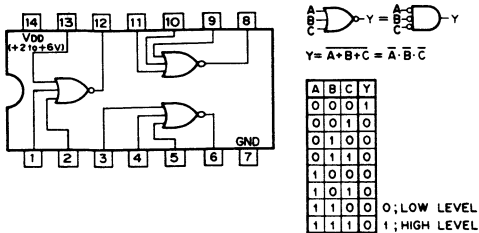
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
HI-Z; HIGH IMPEDANCE

\* VDD HC; +2 to +6V  
HCT; +5V

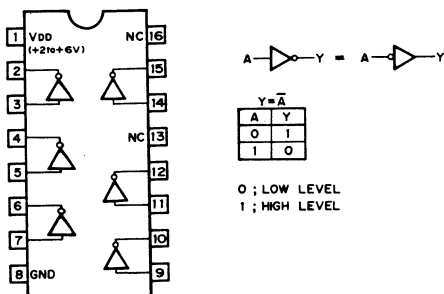




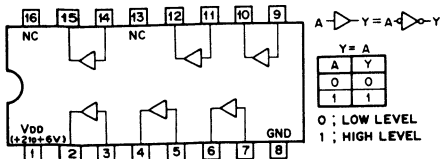
TC74HC27F (TOSHIBA) FLAT PACKAGE  
C-MOS 3-LINE POSITIVE-NOR GATE  
— TOP VIEW —



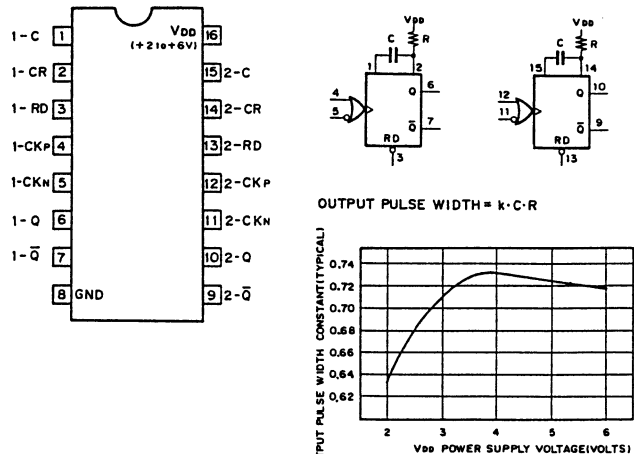
TC74HC4049F (TOSHIBA) FLAT PACKAGE  
C-MOS HEX BUFFER/CONVERTER (INVERTING)  
— TOP VIEW —



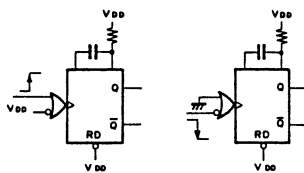
TC74HC4050F (TOSHIBA) FLAT PACKAGE  
TC74HC4050P (TOSHIBA)  
C-MOS NON-INVERTING TYPE BUFFER/CONVERTER  
— TOP VIEW —



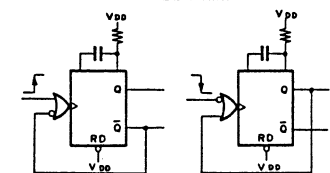
TC74HC4538P (TOSHIBA)  
C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE MONOSTABLE MULTIVIBRATOR  
— TOP VIEW —



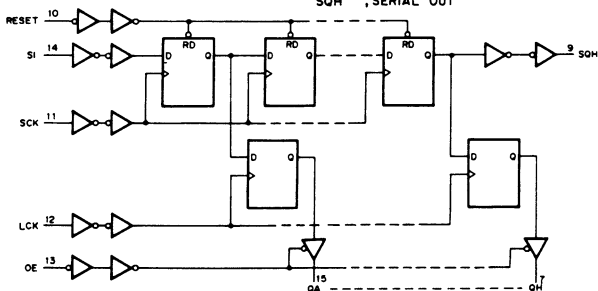
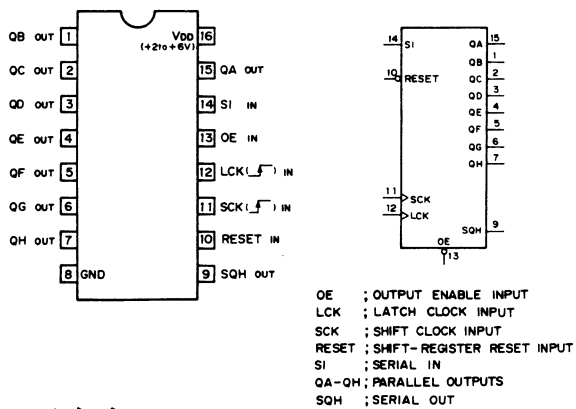
RETRIGGERABLE M.M.V



NON-RETRIGGERABLE M.M.V

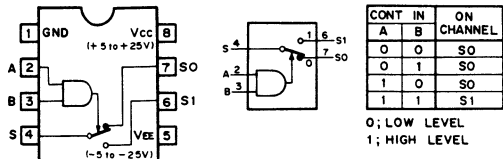


TC74HC595P (TOSHIBA)  
C-MOS 8-BIT SERIAL-INPUT/SERIAL- OR PARALLEL-OUTPUT  
SHIFT REGISTER WITH LATCHED 3-STATE OUTPUT  
— TOP VIEW —

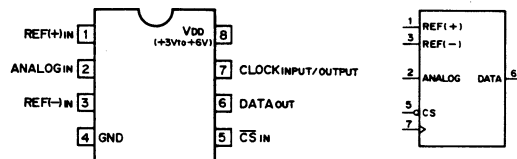




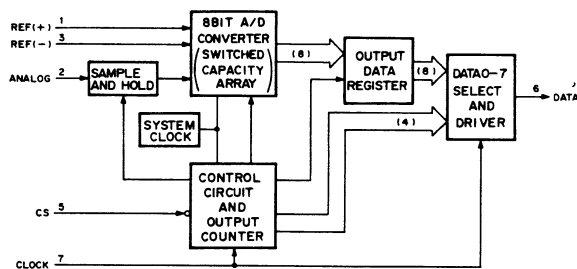
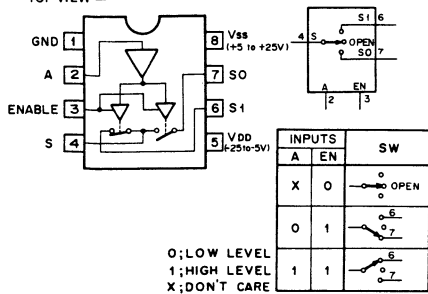
TL601CPS (TI) FLAT PACKAGE  
P-MOS ANALOG SWITCH  
— TOP VIEW —



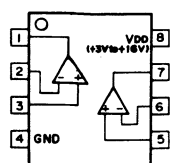
TLC548CP (TI)  
C-MOS 8 BIT A/D CONVERTER  
— TOP VIEW —



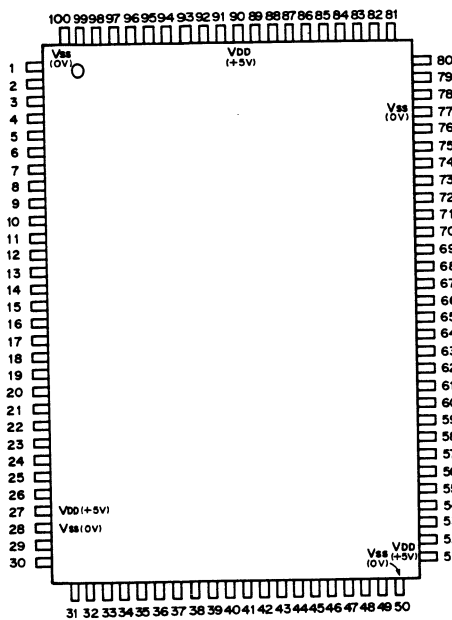
TL607CPS (TI) FLAT PACKAGE  
P-MOS ANALOG SWITCH  
— TOP VIEW —



TLC27M2CPS (TI) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
— TOP VIEW —

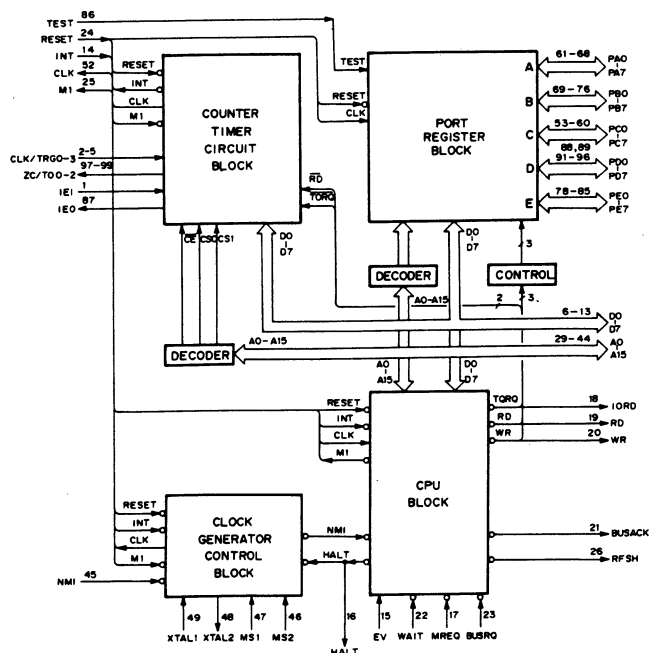


TMP284C011AF (TOSHIBA)  
 TMP284C011AF-6 (TOSHIBA)  
 C-MOS 8 BIT MICROPROCESSOR  
 — TOP VIEW —

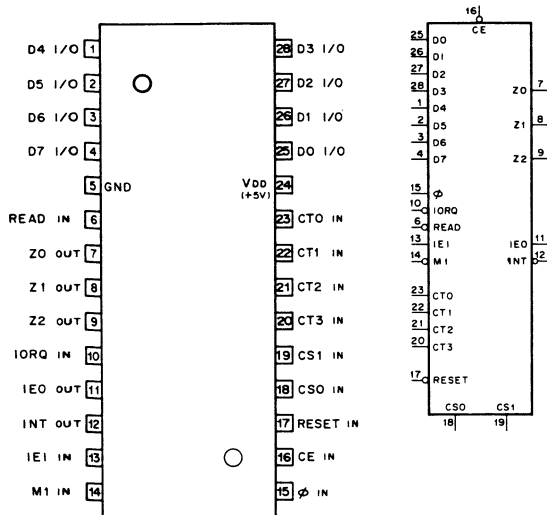


NO.	IN	OUT	SYMBOL	NO.	IN	OUT	SYMBOL
1			IE1	51			Vcc
2			CLK/TRG3	52			CLK
3			CLK/TRG2	53			PC7
4			CLK/TRG1	54			PC6
5			CLK/TRG0	55			PC5
6			D7	56			PC4
7			D6	57			PC3
8			D5	58			PC2
9			D4	59			PC1
10			D3	60			PC0
11			D2	61			PA7
12			D1	62			PA6
13			D0	63			PA5
14			INT	64			PA4
15			EV	65			PA3
16			HALT	66			PA2
17			MREQ	67			PA1
18			IORQ	68			PA0
19			RD	69			PB7
20			WR	70			PB6
21			BUSACK	71			PB5
22			WAIT	72			PB4
23			BUSREQ	73			PB3
24			RESET	74			PB2
25			MT	75			PB1
26			RFSH	76			PB0
27			Vcc	77			Vss
28			Vss	78			PE7
29			A0	79			PE6
30			A1	80			PE5
31			A2	81			PE4
32			A3	82			PE3
33			A4	83			PE2
34			A5	84			PE1
35			A6	85			PE0
36			A7	86			TEST
37			A8	87			IE0
38			A9	88			PD7
39			A10	89			PD6
40			A11	90			Vcc
41			A12	91			PD5
42			A13	92			PD4
43			A14	93			PD3
44			A15	94			PD2
45			NMI	95			PD1
46			MS2	96			PD0
47			MS1	97			ZC/TO2
48			XTAL2	98			ZC/TO1
49			XTAL1	99			ZC/TO0
50			Vss	100			Vss

88	PA0	A0	29	AO-A15	3-STATE ADDRESS BUS OUTPUTS
87	PA1	A1	30	BUSACK	BUS ACKNOWLEDGE OUTPUT
86	PA2	A2	31	BUSREQ	BUS REQUEST INPUT
85	PA3	A3	32	CLK	CLOCK OUTPUT
84	PA4	A4	33	CLK/TRG0-3	EXTERNAL CLOCK / TIMER TRIGGER0-3 INPUTS
83	PA5	A5	34	DO-D7	3-STATE DATA BUS INPUTS/OUTPUTS
82	PA6	A6	35	EV	EVALUATOR INPUT
81	PA7	A7	36	HALT	HALT OUTPUT
80	PB0	A8	37	IE1/IE0	CTC INTERRUPT ENABLE INPUT/OUTPUT
79	PB1	A9	38	INT	MASKABLE INTERRUPT REQUEST INPUT
78	PB2	A10	39	IORQ	3-STATE I/O REQUEST OUTPUT
77	PB3	A11	40	M1	3-STATE MACHINE CYCLE 1 OUTPUT
76	PB4	A12	41	MREQ	3-STATE REQUEST OUTPUT
75	PB5	A13	42	MS1/MS2	MODE SELECT 1/2 INPUTS
74	PB6	A14	43	NMI	NON-MASKABLE INTERRUPT REQUEST INPUT
73	PB7	A15	44	PA0-PA7	
72	PC0	D0	45	PB0-PB7	
71	PC1	D1	46	PC0-PC7	3-STATE I/O PORT
70	PC2	D2	47	PD0-PD7	
69	PC3	D3	48	PE0-PE7	
68	PC4	D4	49	RD	3-STATE READ OUTPUT
67	PC5	D5	50	RESET	RESET INPUT
66	PC6	D6	51	RFSH	REFRESH OUTPUT
65	PC7	D7	52	TEST	TEST INPUT
64	PD0		53	WAIT	WAIT REQUEST INPUT
63	PD1		54	WR	3-STATE WRITE OUTPUT
62	PD2		55	ZC/TO0-2	ZERO COUNT/TIME OUT 0-2 OUTPUTS
61	PD3		56		
60	PD4		57		
59	PD5		58		
58	PD6		59		
57	PD7		60		
56	PE0		61		
55	PE1		62		
54	PE2		63		
53	PE3		64		
52	PE4		65		
51	PE5		66		
50	PE6		67		
49	PE7		68		
48			69		
47			70		
46			71		
45			72		
44			73		
43			74		
42			75		
41			76		
40			77		
39			78		
38			79		
37			80		
36			81		
35			82		
34			83		
33			84		
32			85		
31			86		
30			87		
29			88		
28			89		
27			90		
26			91		
25			92		
24			93		
23			94		
22			95		
21			96		
20			97		
19			98		
18			99		
17			100		



TMP284C30AP-6 (TOSHIBA)  
C-MOS COUNTER TIMER CIRCUIT  
— TOP VIEW —

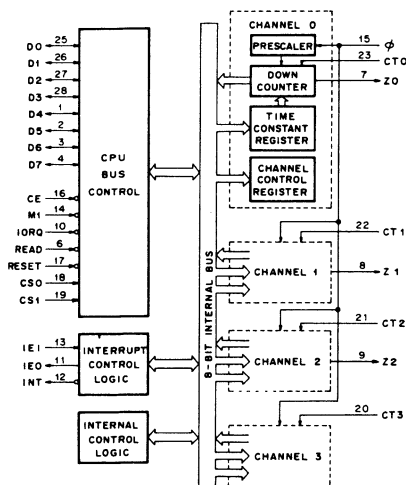


phi : SYSTEM CLOCK  
CE : CHIP ENABLE  
CS0, CS1 : CHANNEL SELECT  
CT0-CT3 : EXTERNAL CLOCK/TIMER TRIGGER  
DO-D7 : 3-STATE DATA INPUT/OUTPUT  
IE1 : INTERRUPT ENABLE INPUT  
IEO : INTERRUPT ENABLE OUTPUT  
INT : INTERRUPT REQUEST (OPEN DRAIN)  
IORQ : I/O REQUEST  
M1 : MACHINE CYCLE 1  
READ : READ CYCLE STATUS  
Z0-Z2 : ZERO COUNT/TIME OUT

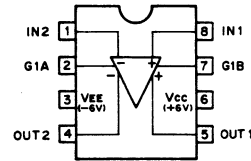
CHANNEL SELECT FUNCTION

CS1	CS0	SELECTED CHANNEL
0	0	0
0	1	1
1	0	2
1	1	3

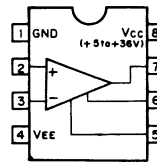
0: LOW LEVEL  
1: HIGH LEVEL



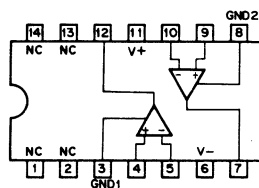
uPC1663G (NEC) FLAT PACKAGE  
WIDEBAND VIDEO AMPLIFIER  
— TOP VIEW —



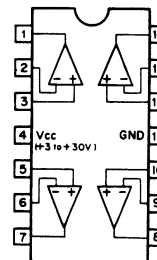
uPC311G2 (NEC) FLAT PACKAGE  
VOLTAGE COMPARATOR  
— TOP VIEW —



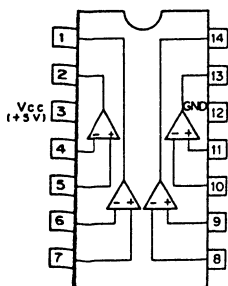
uPC319G2 (NEC) FLAT PACKAGE  
VOLTAGE COMPARATOR  
— TOP VIEW —



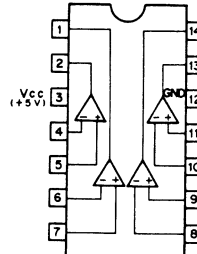
uPC324C (NEC)  
QUAD. OP. AMPLIFIER  
— TOP VIEW —



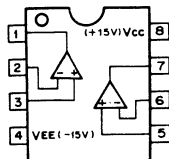
uPC339C (NEC)  
COMPARATOR  
— TOP VIEW —



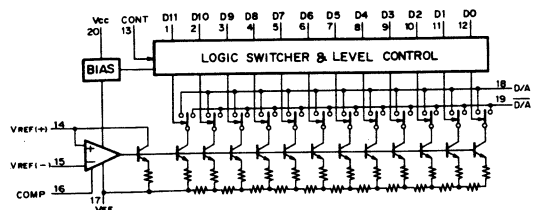
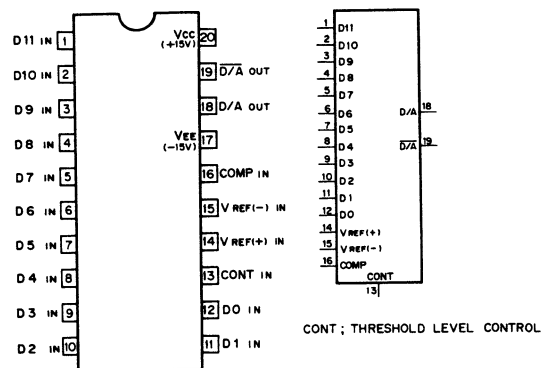
uPC339G2 (NEC) FLAT PACKAGE  
COMPARATOR  
— TOP VIEW —



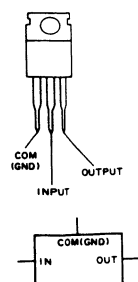
uPC4558C (NEC)  
OPERATIONAL AMPLIFIER  
— TOP VIEW —



uPC648C (NEC)  
12-BIT D/A CONVERTER WITH OPEN COLLECTOR OUTPUT  
— TOP VIEW —

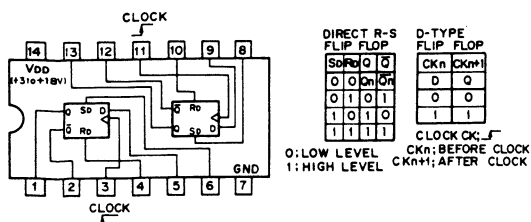


uPC79??H (NEC)  
NEGATIVE VOLTAGE REGULATOR (1A)  
— SIDE VIEW —

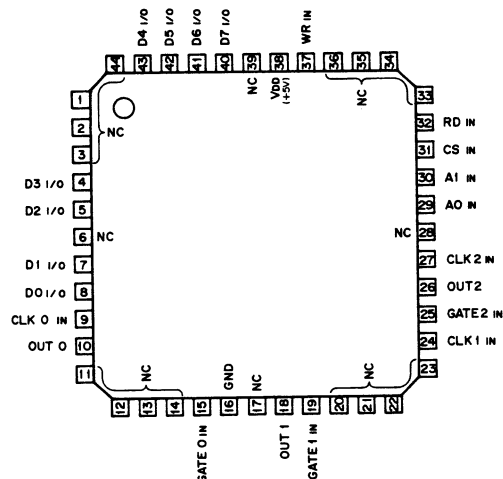


OUTPUT VOLTAGE	AN79??	FS79??	uA79??UC	uPC79??H	MC79??CT
-2V					MC7902CT
-5V	AN7905	FS7905	uA7905UC	uPC7905H	MC7905CT
-5.2V					MC7905.2CT
-6V	AN7906		uA7906UC		MC7906CT
-7V	AN7907				
-8V	AN7908		uA7908UC	uPC7908H	MC7908CT
-9V	AN7909				
-10V	AN7910				
-12V	AN7912		uA7912UC	uPC7912H	MC7912CT
-15V	AN7915		uA7915UC	uPC7915H	MC7915CT
-18V	AN7918		uA7918UC	uPC7918H	MC7918CT
-20V	AN7920				
-24V	AN7924		uA7924UC	uPC7924H	MC7924CT

uPD4013BC (NEC)  
C-MOS D-TYPE FLIP-FLOP WITH DIRECT SET/RESET  
— TOP VIEW —



uPD71054G (NEC) FLAT PACKAGE  
C-MOS PROGRAMMABLE TIMER COUNTER  
— TOP VIEW —



FUNCTION TABLE

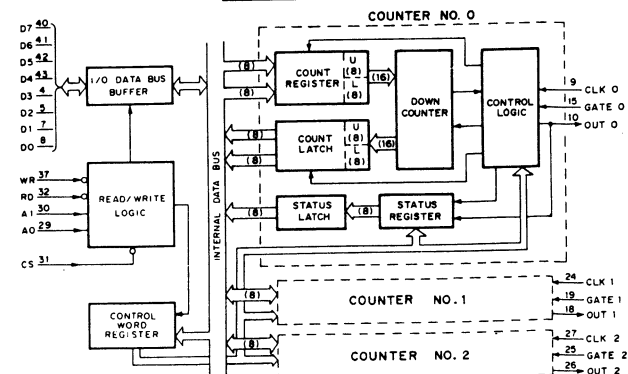
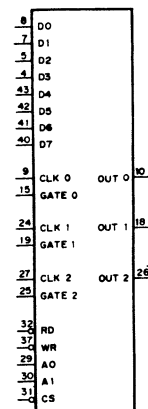
INPUTS				FUNCTION
CS	RD	WR	AO	
0	1	0	0	Load Counter No. 0
0	1	0	1	Load Counter No. 1
0	1	0	1	Load Counter No. 2
0	1	0	1	Control Word
0	0	1	0	Read Counter 0
0	0	1	1	Read Counter 1
0	0	1	1	Read Counter 2
0	0	1	1	No-Operation (HI-Z)
1	X	X	X	Disable (HI-Z)
0	1	1	X	No-Operation (HI-Z)

D7-D0 : 8-BIT DATA I/O  
CLK 0-2 : COUNTER CLOCK  
GATE 0-2 : COUNTER GATE  
OUT 0-2 : COUNTER OUTPUT  
RD : READ COUNTER  
WR : WRITE CMD OR DATA  
CS : CHIP SELECT  
AO, AI : COUNTER SELECT

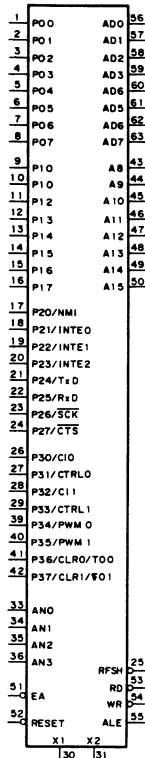
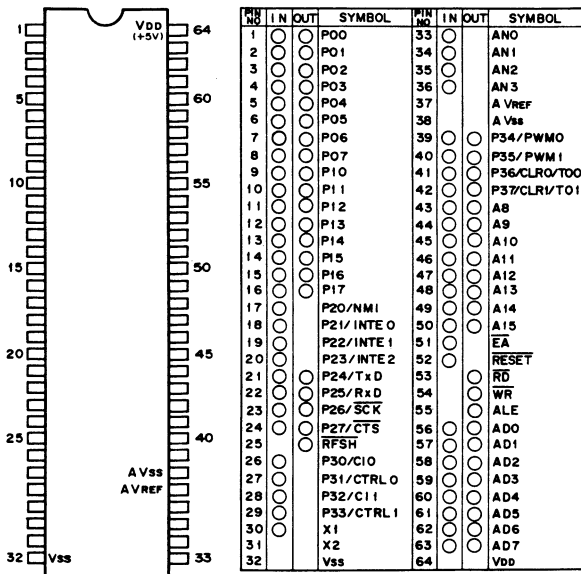
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
HI-Z; HIGH IMPEDANCE

CONTROL WORD FORMAT

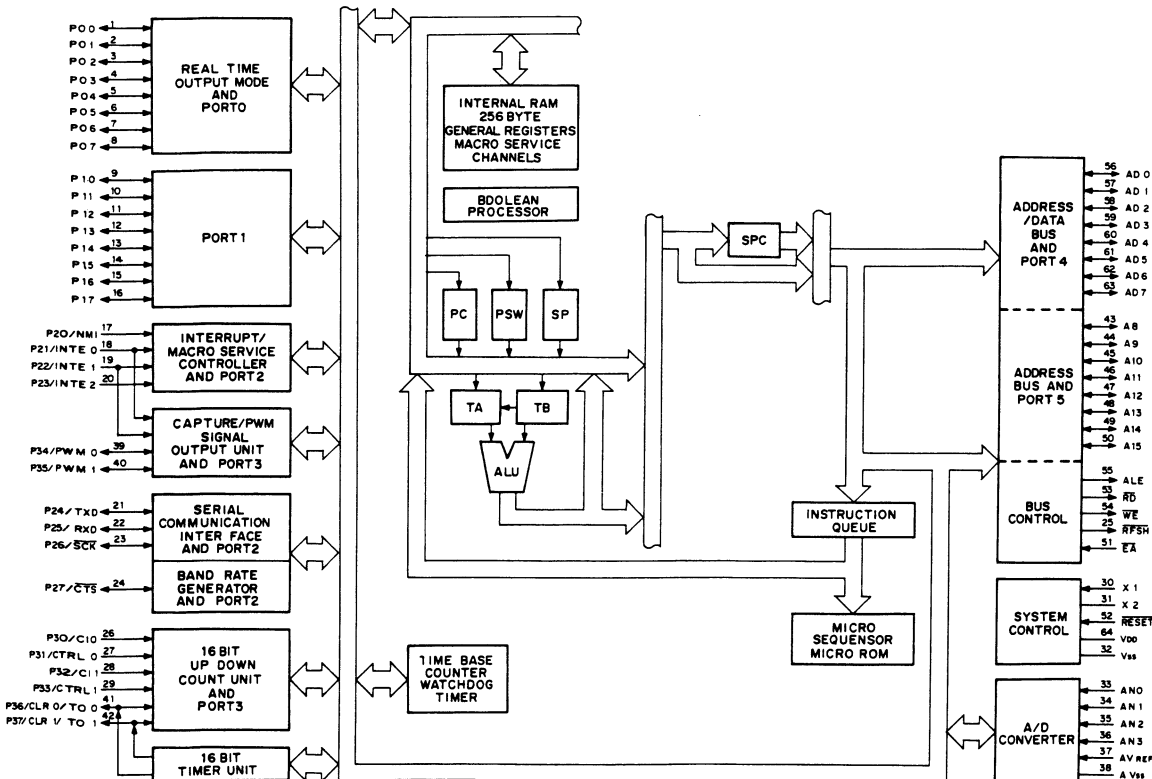
D7	D6	D5	D4	D3	D2	D1	D0
SC1	SC0	RL1	RL0	M2	M1	M0	BCD
BCD OPERATION							
0 0 0 0 0 0 0 0							
1 16-BIT BINARY							
1 BCD (4-DECADE)							
M2 M1 M0 MODE							
0 0 0 0							
0 0 1 1							
X 1 0 2							
X 1 1 3							
1 0 0 4							
1 0 1 5							
RL1 RL0 OPERATION							
0 0 COUNTER LATCHING							
0 1 READ/LOAD LSB ONLY							
1 0 READ/LOAD MSB ONLY							
1 1 LSB FIRST THEN MSB							
SC1 SC0 SELECTED COUNTER							
0 0 COUNTER No. 0							
0 1 COUNTER No. 1							
1 0 COUNTER No. 2							
1 1 MULTIPLE LATCH CMD							



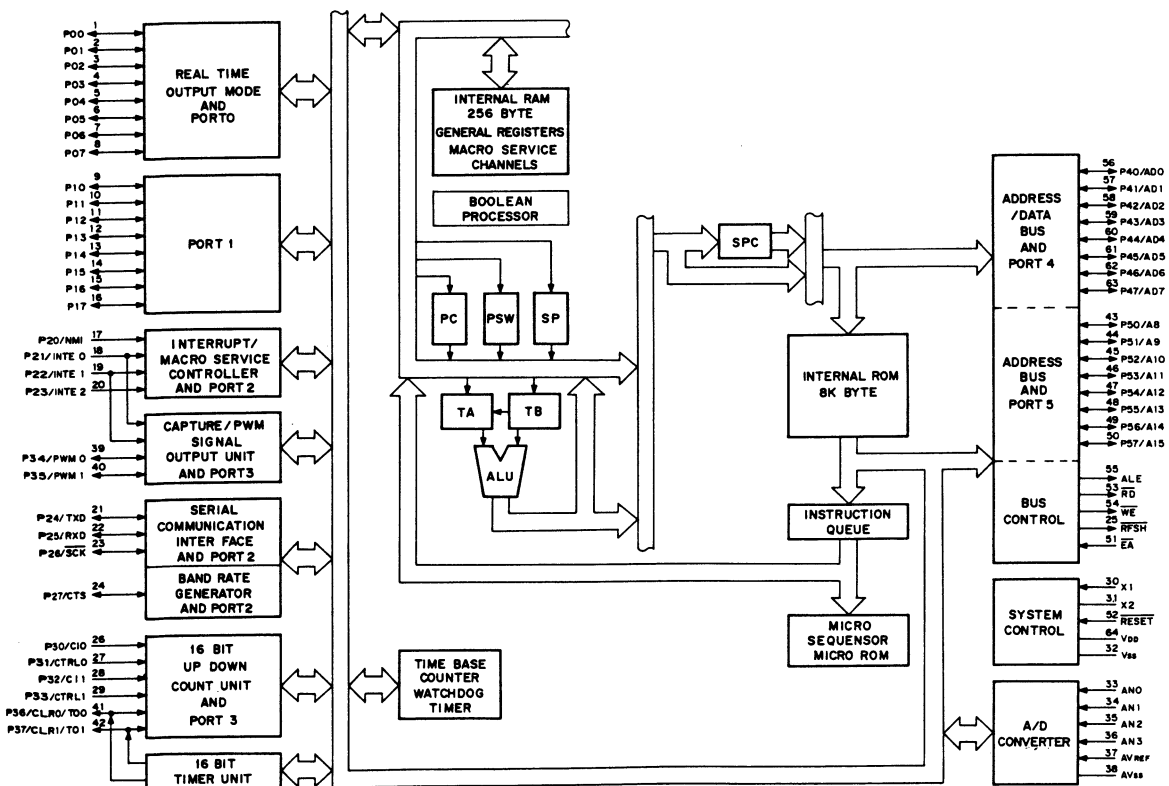
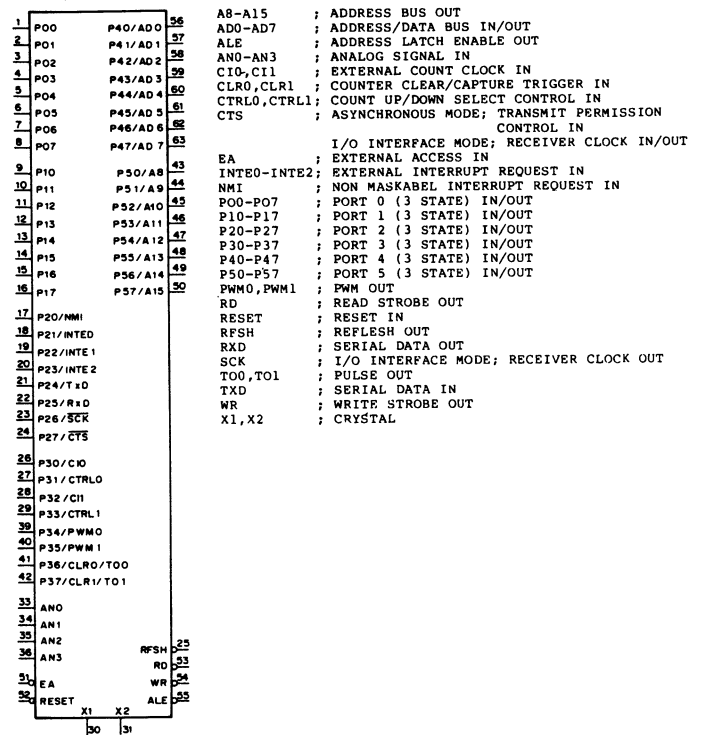
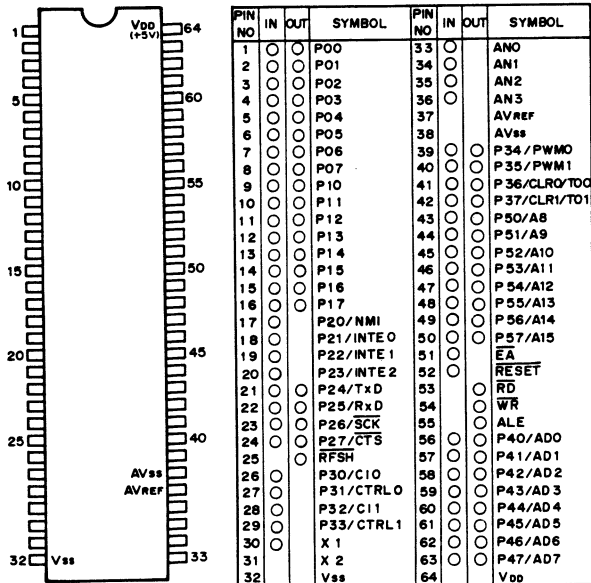
UPD78310CW (NEC)  
C MOS 16/8 BIT ONE CHIP MICROCOMPUTER  
— TOP VIEW —



A8-A15 ; ADDRESS BUS OUT  
AD0-AD7 ; ADDRESS/DATA BUS IN/OUT  
ALE ; ADDRESS LATCH ENABLE OUT  
AN0-AN3 ; ANALOG SIGNAL IN  
C10,C11 ; EXTERNAL COUNT CLOCK IN  
CLRO,CLRI ; COUNTER CLEAR/CAPTURE THIGGER IN  
CTRL0,CTRL1 ; COUNT UP/DOWN SELECT CONTROL IN  
CTS ; ASYNCHRONOUS MODE; TRANSMIT PERMISSION CONTROL IN  
I/O INTERFACE MODE; RECEIVER CLOCK IN/OUT  
EA ; EXTERNAL ACCESS IN  
INTE0-INTE2 ; EXTERNAL INTERRUPT REQUEST IN  
NMI ; NON MASKABLE INTERRUPT REQUEST IN  
P00-P07 ; PORT 0 (3 STATE) IN/OUT  
P10-P17 ; PORT 1 (3 STATE) IN/OUT  
P20-P27 ; PORT 2 (3 STATE) IN/OUT  
P30-P37 ; PORT 3 (3 STATE) IN/OUT  
PWM0,PWM1 ; PWM OUT  
RD ; READ STROBE OUT  
RESET ; RESET IN  
RFSH ; REFRESH OUT  
RxD ; SERIAL DATA OUT  
SCK ; I/O INTERFACE MODE; RECEIVER CLOCK OUT  
T00,T01 ; PULSE OUT  
TxD ; SERIAL DATA IN  
WR ; WRITE STROBE OUT  
X1,X2 ; CRYSTAL

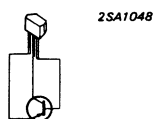


μPD78312CW (NEC)  
CMOS 16/8 BIT ONE CHIP MICROCOMPUTER  
— TOP VIEW —

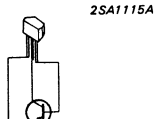




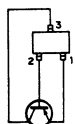
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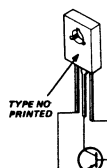
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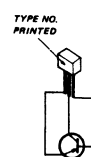
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2SA1122  
2SA1162  
2SA1226  
2SA812

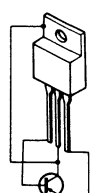


2SA1141  
2SA1156  
2SB649A

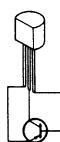


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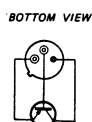
2SA1175



2SA473  
2SA768  
2SB553

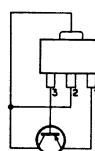


2SA733  
2SA844



BOTTOM VIEW

2SA911



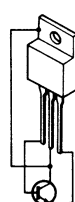
2SB1115A



2SB733  
2SB734



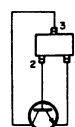
2SB822



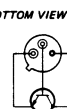
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2SC2654



2SC1310  
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2SC2603  
2SC403SP  
2SC634SP

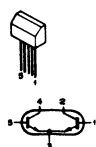


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2SC3326N



BOTTOM VIEW

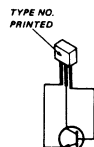
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2SC2259



2SC2754  
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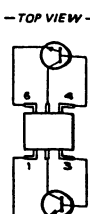
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2SC2901



2SC3012

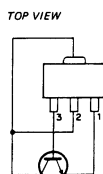


— TOP VIEW —

2SC3064

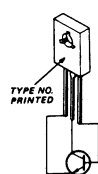


2SD1055



TOP VIEW

2SD1615A



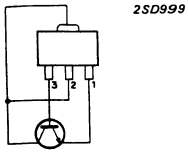
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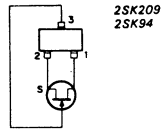


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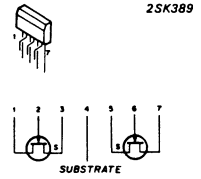
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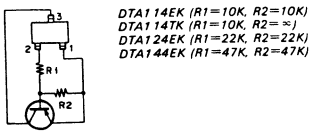
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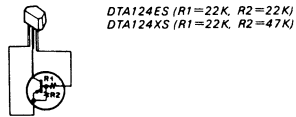
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2SK94



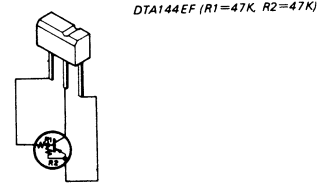
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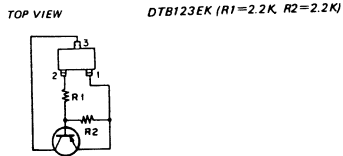
DTA114EK (R1=10K, R2=10K)  
DTA114TK (R1=10K, R2=∞)  
DTA124EK (R1=22K, R2=22K)  
DTA144EK (R1=47K, R2=47K)



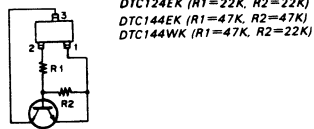
DTA124ES (R1=22K, R2=22K)  
DTA124XS (R1=22K, R2=47K)



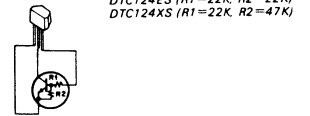
DTA144EF (R1=47K, R2=47K)



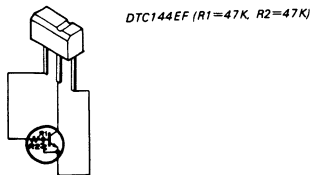
DTB123EK (R1=2.2K, R2=2.2K)



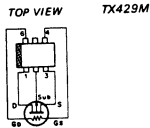
DTC124EK (R1=22K, R2=22K)  
DTC144EK (R1=47K, R2=47K)  
DTC144WK (R1=47K, R2=22K)



DTC124ES (R1=22K, R2=22K)  
DTC124XS (R1=22K, R2=47K)

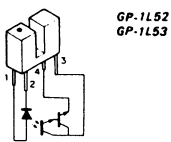
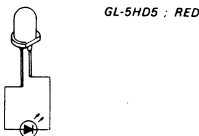
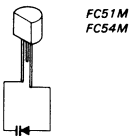
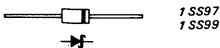
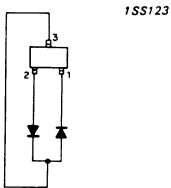
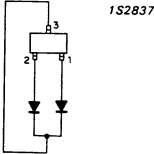
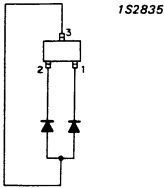
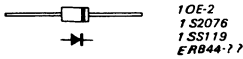


DTC144EF (R1=47K, R2=47K)



TX429M

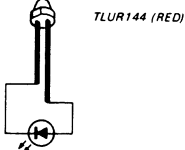
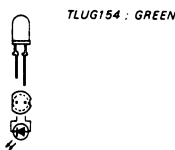
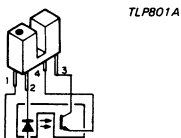
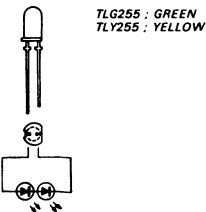
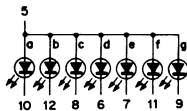
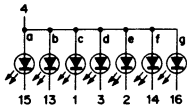
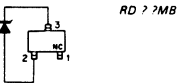
# DIODE, (OTHER)



TOP VIEW



LB-402VK : RED




The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

## SECTION 19

### SPARE PARTS AND FIXTURE

#### 19-1. PARTS INFORMATION

1. 

The shaded and  -marked components are critical to safety. Replace only with the same components as specified.
2. Replacement parts supplied from the Sony Parts Center will sometimes have a different shape and outside view from the parts which are used in the unit. This is due to "accommodating improved parts and/or engineering changed" or "standardization of genuine parts".
  - This manual's exploded views and electrical spare parts lists indicate the part numbers of "the present standardized genuine parts".
  - Regarding engineering part changes by our engineering department, refer to Sony service bulletins and service manual supplements.
3. The parts marked with "s" in the SP column of the exploded views and electrical spare parts lists are normally stocked for replacement purposes. The parts marked with "o" in the SP column are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.
4. Items with no part number and/or no description are not stocked because they are seldom required for routine service.
5. ( T) after a spring description is shown on the exploded views in order to indicate the number of spring turns required for the use. (example)  
Spring, tension (24T); this spring must be cut at its 24th turn for actual use.

#### 19-2. EXPLODED VIEW

• Exploded views are composed of the following blocks.

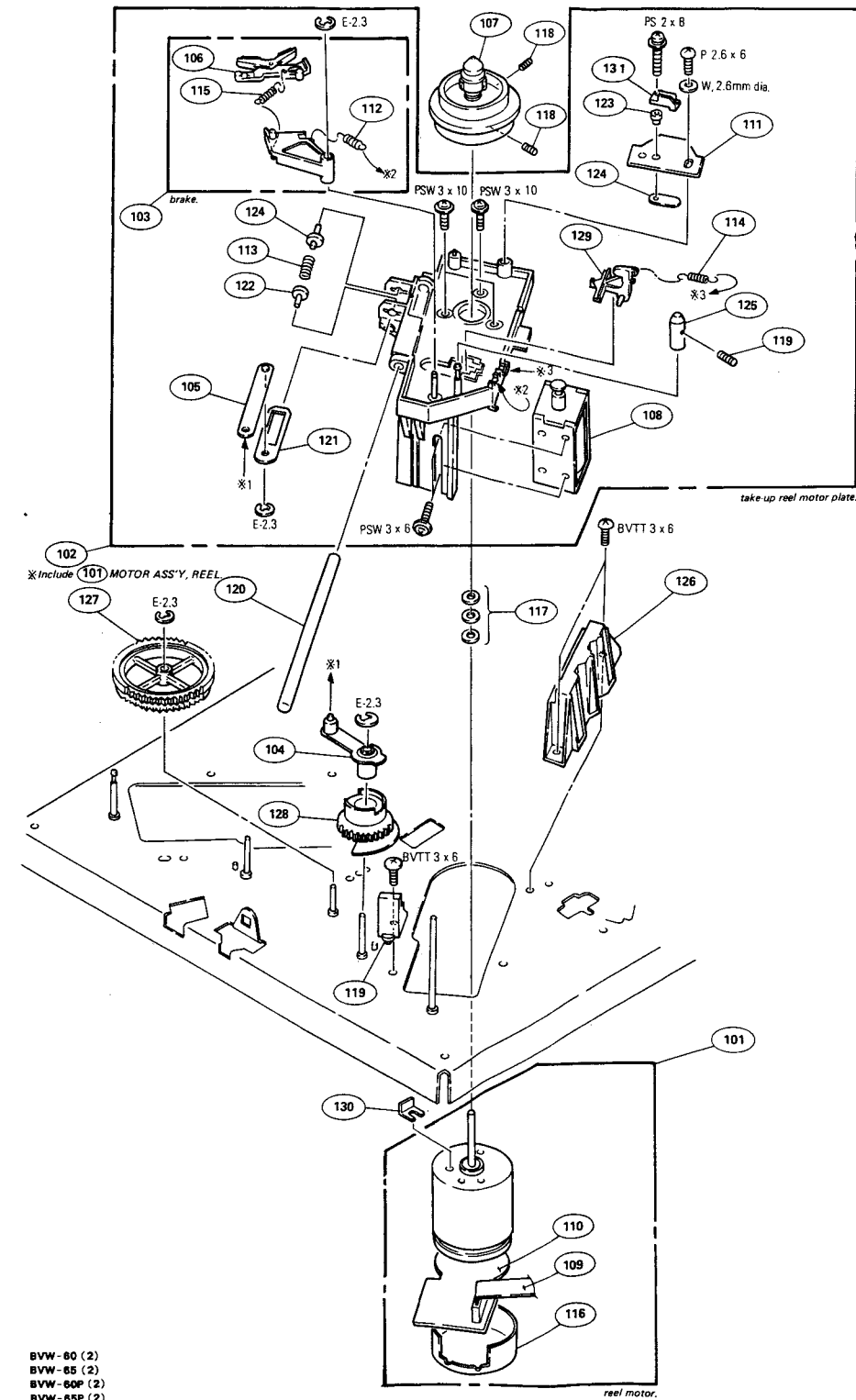
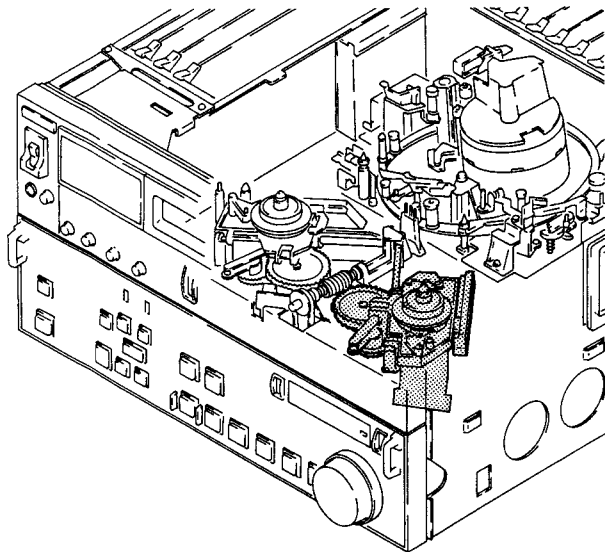
1. Supply Side Reel Chassis
  - supply reel table
  - supply motor plate
  - reel motor
  - reel drive motor
  - cassette detector
2. Take-up Side Reel Chassis
  - take-up reel table
  - take-up motor plate
  - reel motor
  - cassette detector
3. Head Drum, Stationary Heads and Tape Guides Block
  - head drum ass'y
  - CTL head
  - TG-0 ass'y
  - audio/TC head
  - tape guide
  - capstan motor
  - slip ring
4. Threading Ring Block
  - threading ring
  - pinch roller
  - tape guide
  - ring sensor
5. T Drawer Arm Block
  - T drawer arm
  - tape beginning sensor
6. Supply Tension Regulator Block
  - supply tension regulator
7. Pinch Press Mechanism Block
  - pinch press mechanism
8. Gear Box Block
  - gear box
9. Function control Chassis Block
  - function control chassis
  - sub function control panel
  - search dial
  - hinge

- 10. Level Control Chassis Block
  - level control chassis
  - audio level meter
- 11. Cassette-up Compartment Block
  - cassette-up compartment
- 12. Connector Panel Block
  - connector panel
  - ventilation fun
- 13. Switching Regulator Block
  - switching regulator
  - AC inlet
  - ventilation fun
- 14. Printed Circuit Board Block (1)
  - printed circuit board
  - PCB guide
  - shield plate
- 15. Printed Circuit Board Block (2)
  - printed circuit board
- 16. Ornamental Panel Block
  - level control panel
  - function control panel
  - side panel
  - top panel
  - bottom panel

## REEL CHASSIS (1)

19-4

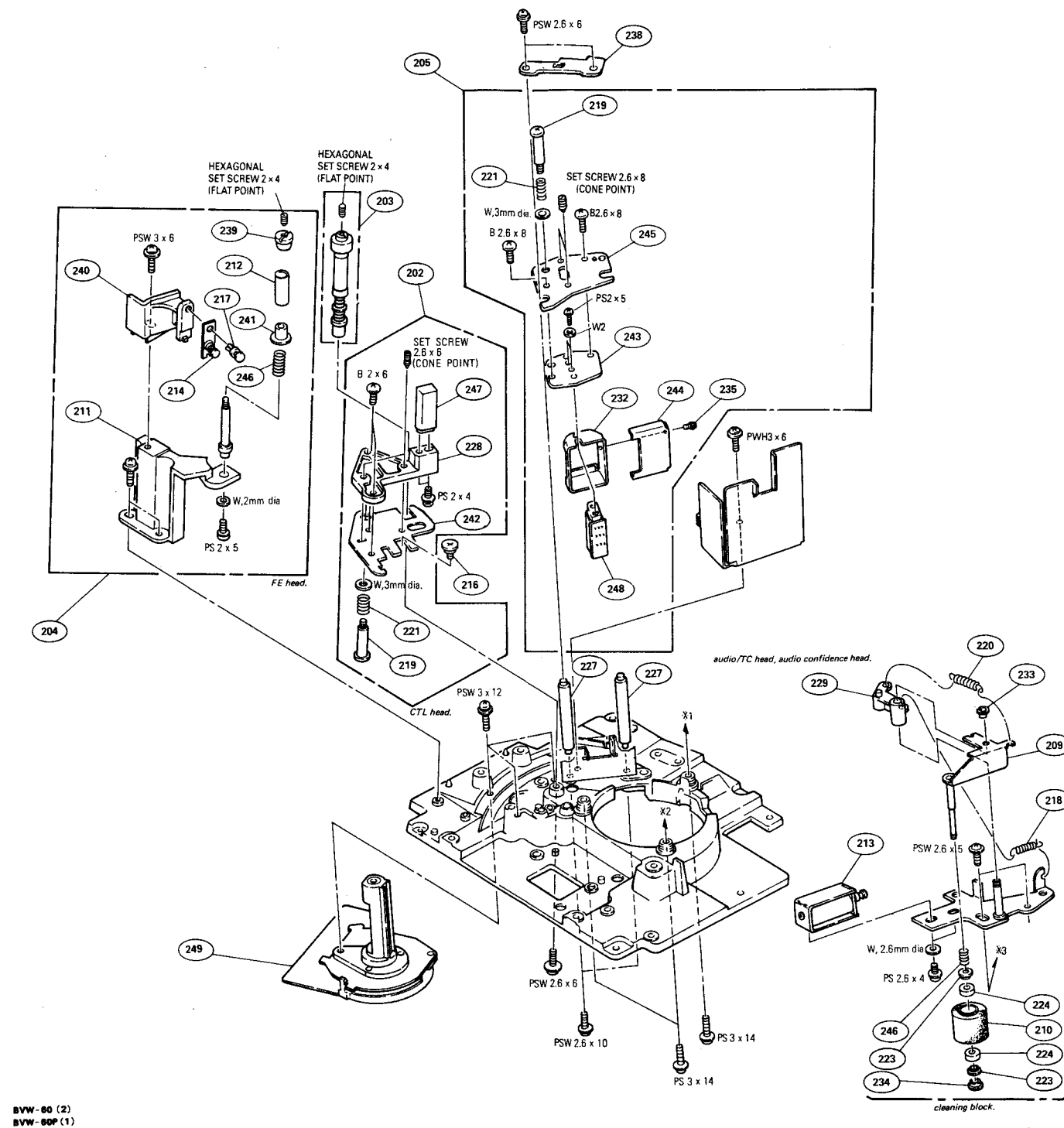
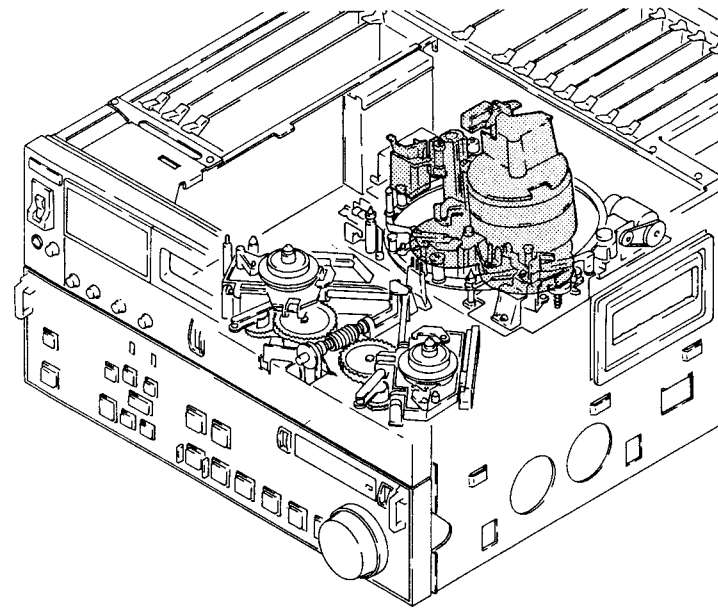
Take-up Side Reel Chassis



BVW-80 (2)  
BVW-85 (2)  
BVW-86P (2)  
BVW-85P (2)

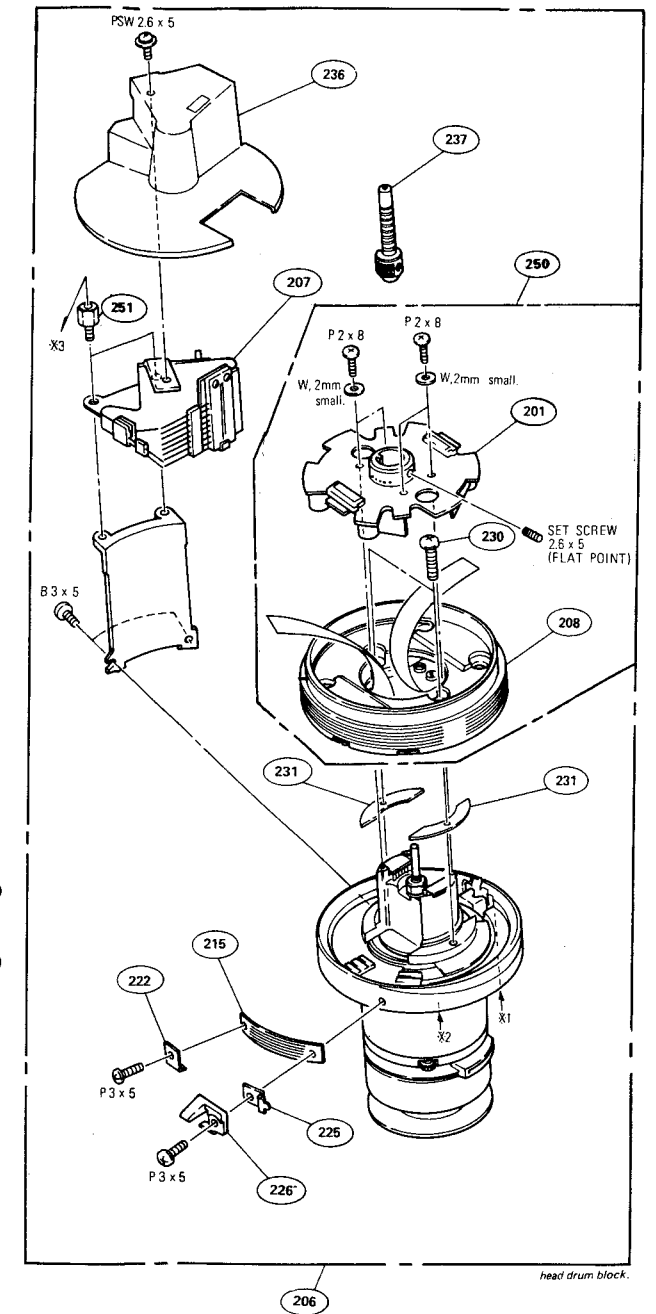
No.	Parts No.	SP	Description
101	A-6737-175-A	s	MOTOR ASS'Y, REEL
102	A-6737-176-A	s	PLATE (T) ASS'Y, MOTOR
103	A-6741-066-A	o	BRAKE ASS'Y
104	X-3717-202-1	o	ARM ASS'Y, CRANK
105	X-3717-204-1	o	ARM (B) ASS'Y, CRANK
106	X-3717-205-1	s	LINING ASS'Y
107	X-3717-207-1	s	TABLE ASS'Y, REEL
108	1-454-417-31	s	SOLENOID, PLUNGER
109	1-559-266-11	o	WIRE, FLEXIBLE CARD
110	1-622-605-11	o	PRINTED CIRCUIT BOARD, RM-40
111	1-622-606-11	o	PRINTED CIRCUIT BOARD, DE-15
112	3-307-381-01	s	SPRING, TENSION
113	3-491-247-00	s	SPRING, COMPRESSION
114	3-535-532-01	s	SPRING, TENSION
115	3-648-217-00	o	SPRING, TENSION
116	3-675-826-01	o	COVER, SHIELD, RM
117	3-701-441-01	s	WASHER, POLY 4MM DIA. 0.13T
	3-701-441-11	s	WASHER, POLY 4MM DIA. 0.25T
	3-701-441-21	s	WASHER, POLY 4MM DIA. 0.5T
118	3-701-506-01	s	SET SCREW, DOUBLE POINT 3 x 4
119	3-717-205-01	o	HOLDER (B), SHAFT
120	3-717-223-01	s	SHAFT, SLIDE
121	3-717-230-01	o	BRACKET, LIMITER
122	3-717-231-01	o	HOLDER, LIMITER
123	3-717-232-01	o	SHAFT, FITTING, MR SENSOR
124	3-717-233-01	o	BRACKET, DE-15
125	3-717-266-01	o	CAP (S), CG SHAFT
126	3-717-398-01	o	TABLE, SLIDE
127	3-717-399-01	s	WHEEL, W
128	3-717-400-01	s	GEAR, CRANK FLAT
129	3-717-450-01	o	ARM, BRAKE RELEASE
130	3-717-625-01	s	SPACER
131	1-807-683-11	s	RESISTOR ELEMENT

## Head Drum, Stationary Heads and Tape Guides Block



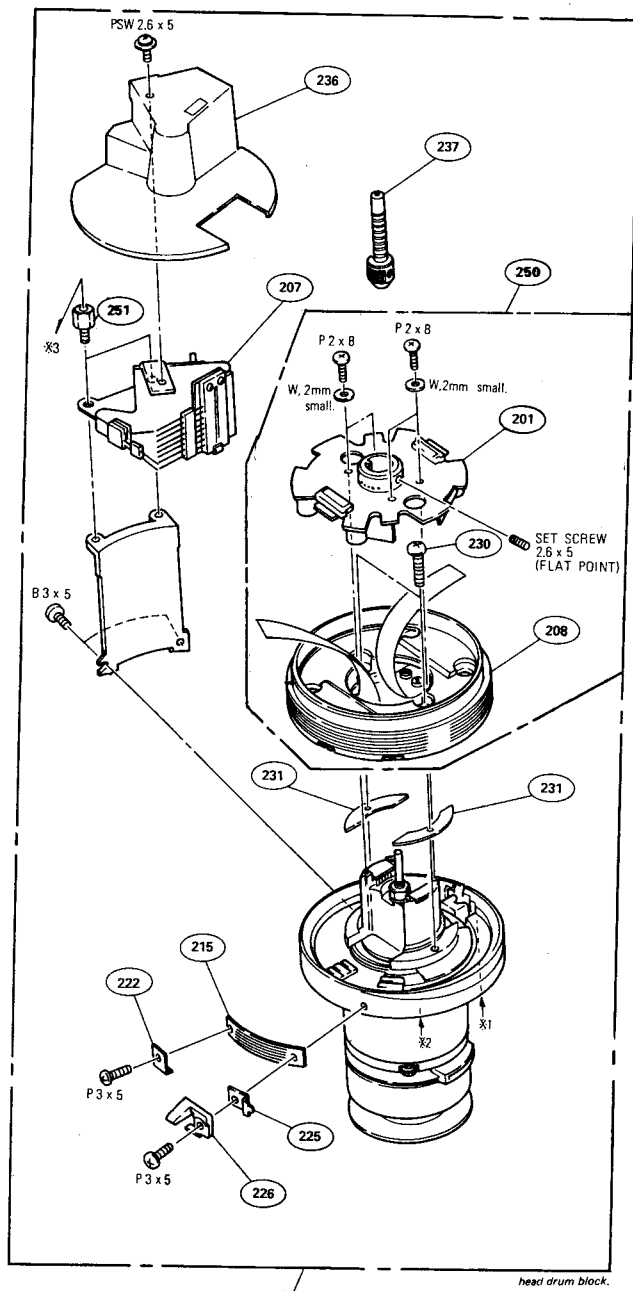
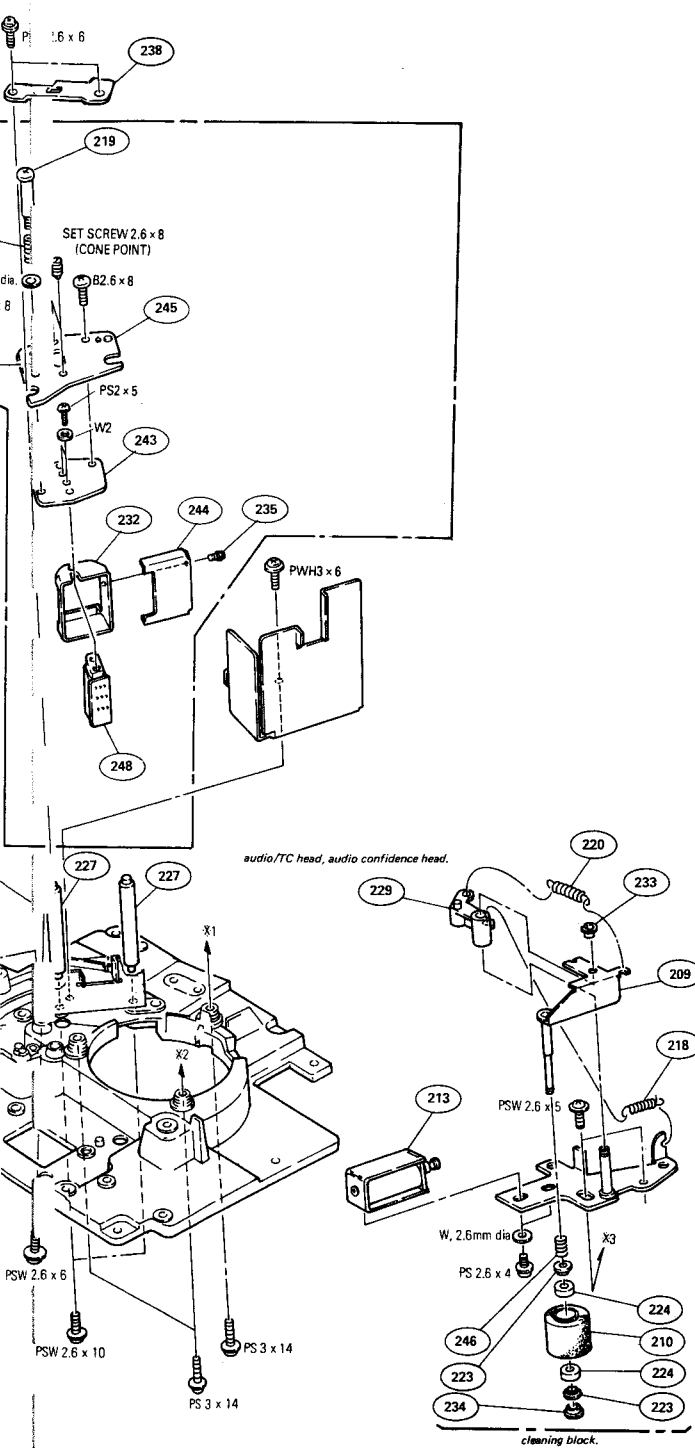
BVW-60 (2)  
BVW-60P (1)

## DRUM, HEAD, TAPE GUIDE



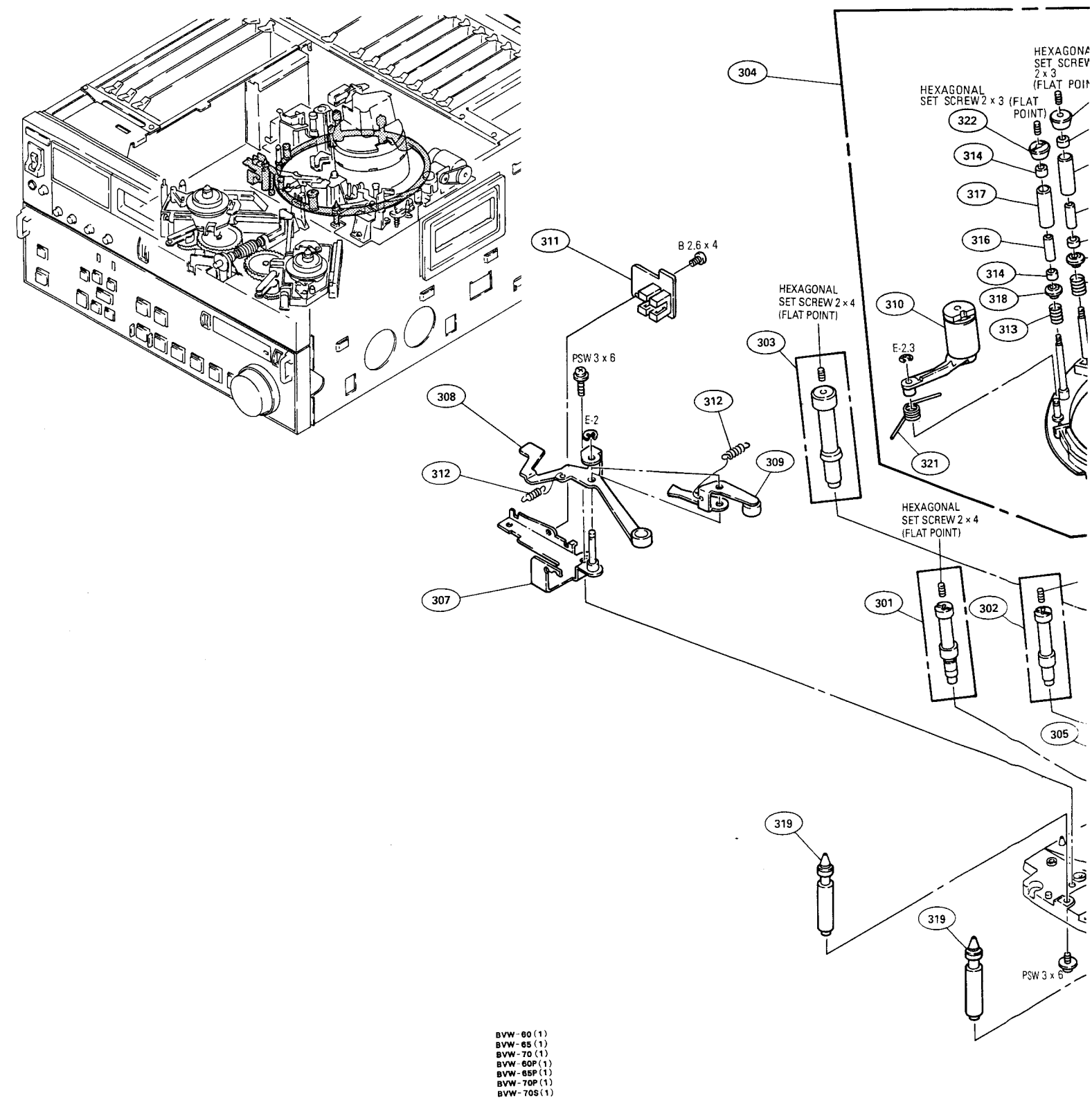
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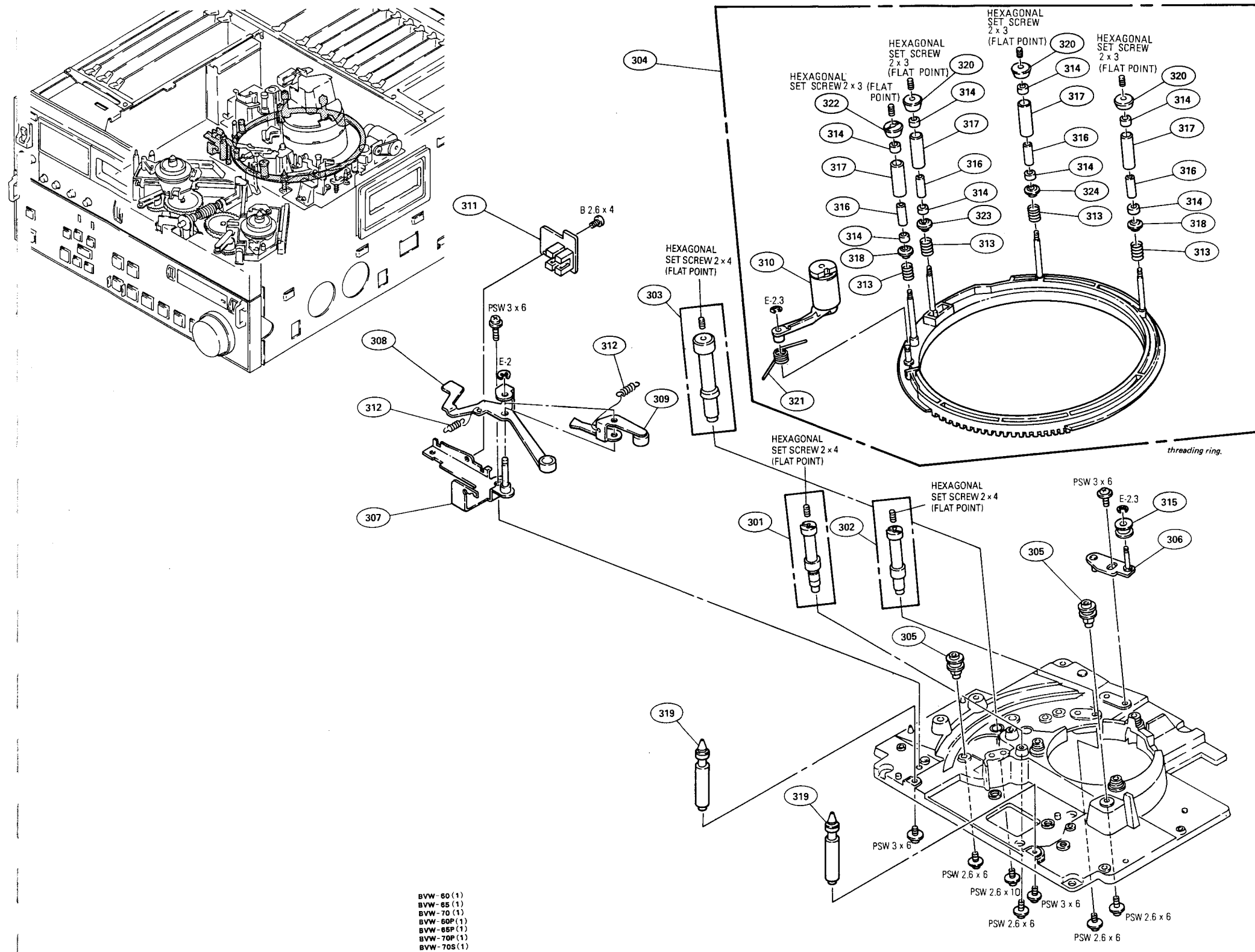
No.	Parts No.	SP	Description
201	A-6050-631-A	s	PC BOARD (RF) ASS'Y, PA-68AP
202	A-6736-061-A	o	HEAD ASS'Y CTL
203	A-6746-027-A	s	ROLLER (TG 1N) ASS'Y, TAPE
204	A-6746-053-A	o	TG-0 ASS'Y
205	A-6736-075-A	o	HEAD ASS'Y, AU
206	A-6050-552-A	s	HEAD DRUM ASS'Y, DBH-06A-R
207	A-6050-646-A	s	BRUSH ASS'Y
208	A-6762-349-A	s	UPPER DRUM ASS'Y, DBR-06-R
209	X-3675-854-1	o	LEVER ASS'Y, C
210	X-3675-858-1	s	ROLLER SUB ASS'Y, C
211	X-3717-292-1	o	DECK ASS'Y, TG-0
212	X-3717-299-1	s	ROLLER ASS'Y, GUIDE
213	1-454-372-11	s	SOLENOID, PLUNGER
214	1-543-316-21	s	HEAD, SENSING (SMALL TYPE)
215	1-586-633-00	s	DETECTOR, DEW
216	2-236-956-00	s	SCREW, STEP
217	2-279-715-01	s	RIVET, NYLON
218	3-140-263-XX	s	SPRING, TENSION (23T)
219	3-437-173-02	o	SCREW, HEAD ADJUSTING
220	3-542-475-00	s	SPRING, TENSION
221	3-653-350-00	s	SPRING, COMPRESSION
222	3-655-631-00	o	TERMINAL, GROUND
223	3-655-966-00	s	SPACER, STEP
224	3-669-443-00	s	BEARING, BALL (NO FLANGE)
225	3-675-701-00	o	TERMINAL BOARD
226	3-675-739-00	o	SPACER, INSULATING (2)
227	3-675-804-02	o	BRACKET, ADJUSTMENT PLATE
228	3-675-842-00	o	PLATE, ADJUSTMENT, CTL
229	3-680-839-01	o	LEVER (2), C
230	3-683-825-01	s	SCREW (M3 X 8)
231	3-683-828-01	s	SPACER, FLANGE (T=0.01 MM)
232	3-683-828-11	s	SPACER, FLANGE (T=0.03 MM)
233	3-683-828-21	s	SPACER, FLANGE (T=0.1 MM)
234	3-698-731-01	o	PLATE, SHIELD, FRONT
235	3-703-074-00	s	CAP 3, SHAFT
236	3-703-075-00	s	CAP 2, SHAFT
237	3-703-502-41	s	SCREW
238	3-717-131-01	o	COVER, BRUSH
239	A-6050-650-A	s	RING, SLIP
240	3-717-243-03	o	PLATE, ADJUSTMENT, AT HEAD
241	3-717-267-01	s	FLANGE, UPPER
242	3-717-272-01	o	HOLDER, S SENSOR
243	3-717-293-01	s	FLANGE, LOWER
244	3-717-522-01	o	BASE, CTL HEAD
245	3-717-650-02	o	BRACKET (P), HEAD
246	3-717-651-01	o	CASE (P), SHIELD
247	3-717-652-02	o	DECK (P), HEAD
248	4-879-762-00	s	SPRING, COMPRESSION
249	8-825-554-73	s	HEAD, CTL PS244-21A
250	8-825-771-11	s	HEAD AUDIO CONF. PS244-2103C
251	8-835-259-01	s	MOTOR, DC BHF-1918A
252	A-6762-402-A	o	UPPER DRUM ASS'Y, DBR-06A-R
253	3-717-106-01	o	SPACER

Threading Ring Block



THREADING RING	THREADING RING

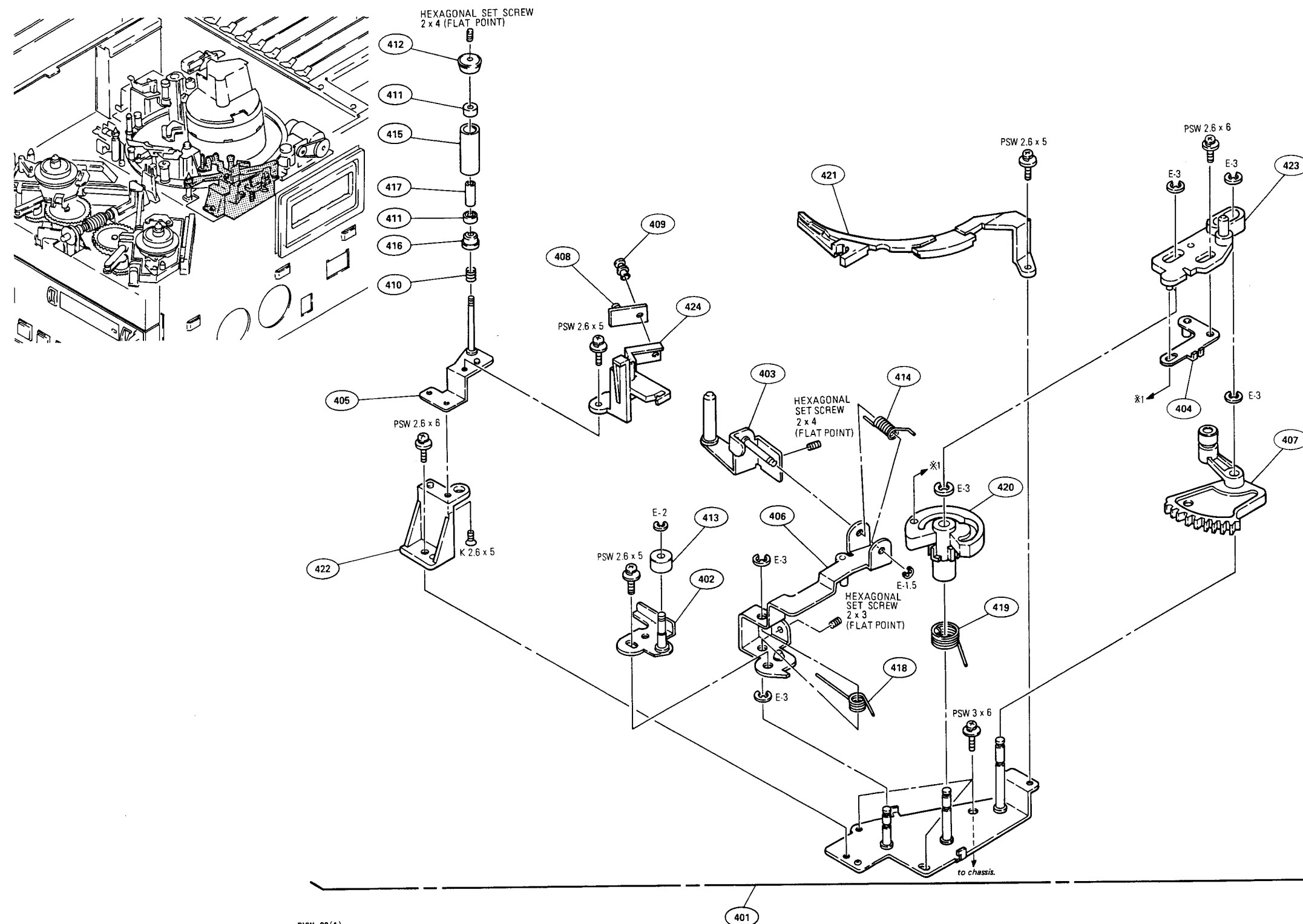
### Threading Ring Block



No.	Parts No.	SP	Description
301	A-6746-028-A	s	ROLLER (TG2) ASS'Y, TAPE
302	A-6746-029-C	s	ROLLER (TG3) ASS'Y, TAPE
303	A-6746-030-C	s	ROLLER (TG4) ASS'Y, TAPE
304	A-6750-214-D	o	RING ASS'Y, LOADING
305	X-3675-809-0	o	ROLLER (A) ASS'Y, RING
306	X-3717-208-1	o	ROLLER (B) SUB ASS'Y, RING
307	X-3717-210-1	o	BACKET ASS'Y, RING SENSOR
308	X-3717-211-1	o	LEVER ASS'Y, TH END
309	X-3717-212-1	o	LEVER ASS'Y, TH.B END
310	X-3717-215-3	s	ARM ASS'Y, PINCH ROLLER
311	1-622-597-11	o	PRINTED CIRCUIT BOARD, PTC-15
312	3-533-373-00	s	SPRING, TENSION
313	3-637-331-00	s	SPRING, COMPRESSION (L)
314	3-650-312-00	s	BEARING, BALL (NO FLANGE)
315	3-675-866-00	o	ROLLER, RING
316	3-680-809-00	s	RETAINER, BEARING
317	3-680-810-00	s	ROLLER
318	3-680-812-00	s	FLANGE, LOWER
319	3-717-242-01	o	SHAFT, CG
320	3-717-267-01	s	FLANGE, UPPER
321	3-717-268-01	s	SPRING
322	3-717-269-01	s	FLANGE, PRECEDING GUIDE
323	3-717-270-01	s	FLANGE (A), LOWER
324	3-717-271-01	s	FLANGE (B), LOWER

T	DRAWER	ARM	T	DRAWER	ARM
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T Drawer Arm Block



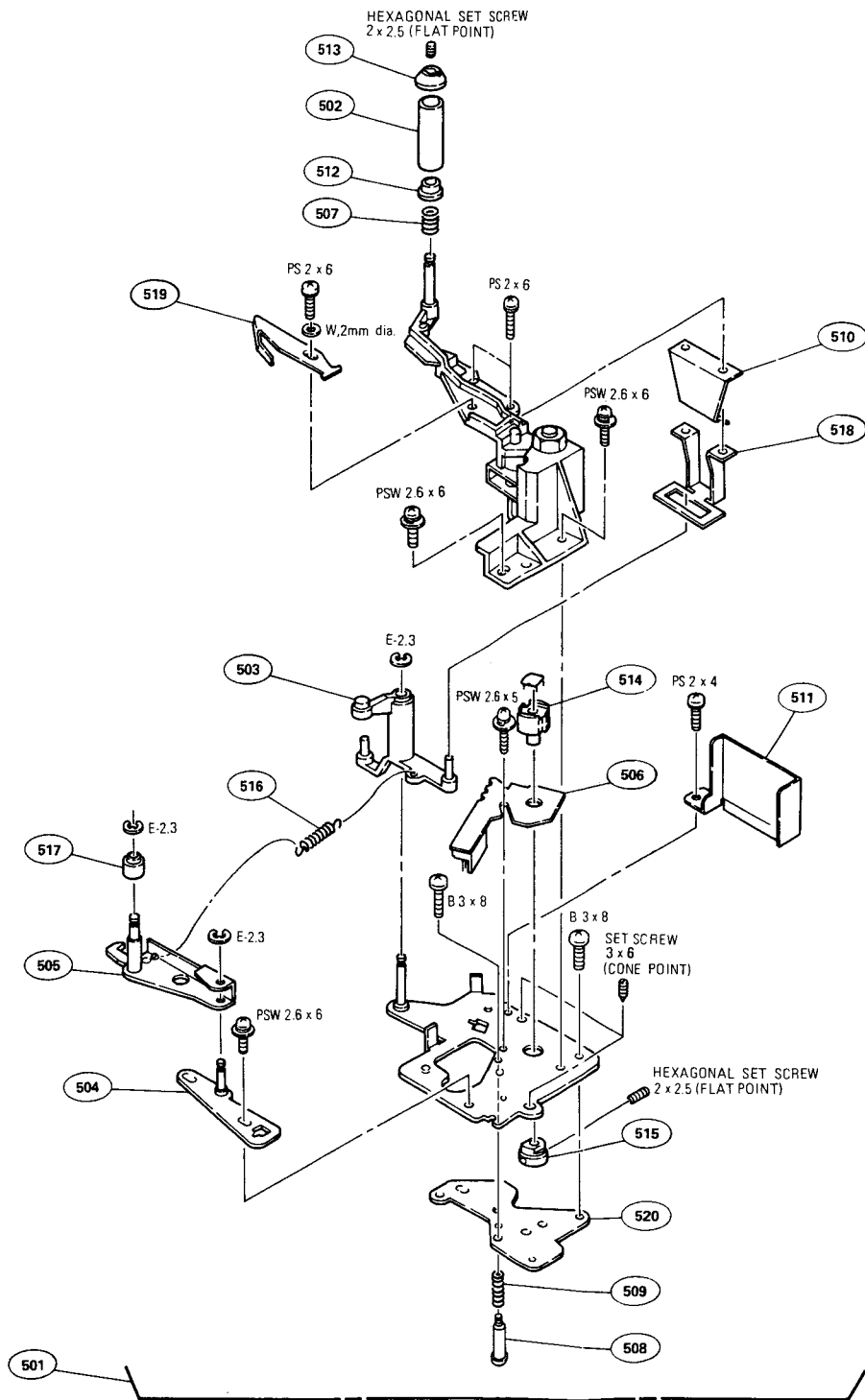
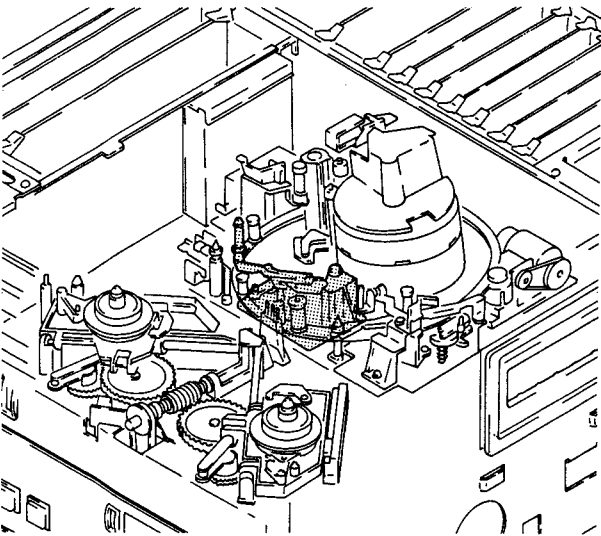
No.	Parts No.	SP	Description
401	A-6746-047-D	s	DRAWER ASS'Y, T
402	X-3717-221-1	o	PLATE ASS'Y, ADJUSTMENT
403	X-3717-222-1	s	GUIDE ASS'Y, SLANT
404	X-3717-223-1	o	PLATE ASS'Y, ADJUSTMENT, SLANT
405	X-3717-224-1	o	BASE ASS'Y, T ROLLER
406	X-3717-239-1	o	ARM ASS'Y, T
407	X-3717-250-2	o	GEAR (1) ASS'Y, T
408	1-543-316-21	s	HEAD, SENSING (SMALL TYPE)
409	2-279-715-01	s	RIVET, NYLON
410	2-618-901-00	o	SPRING
411	3-650-312-00	s	BEARING, BALL (NO FLANGE)
412	3-717-267-01	s	FLANGE, UPPER
413	3-717-283-01	o	ROLLER (2)
414	3-717-284-01	o	SPRING (SLANT GUIDE)
415	3-717-292-01	s	ROLLER, GUIDE
416	3-717-293-01	s	FLANGE, LOWER
417	3-717-294-01	o	RETAINER, BEARING
418	3-717-299-01	o	SPRING
419	3-717-300-01	o	SPRING (T GEAR 2)
420	3-717-406-01	o	GEAR (2), T
421	3-717-407-01	s	RETAINER, PINCH
422	3-717-524-01	o	BRACKET, T ROLLER ASS'Y
423	3-717-536-01	o	SLIDER
424	3-717-537-01	o	HOLDER, SENSOR

**BVW-60(1)**  
**BVW-65(1)**  
**BVW-70(1)**  
**BVW-80P(1)**  
**BVW-65P(1)**  
**BVW-70P(1)**  
**BVW-70S(1)**

SUPPLY TENSION REGULATOR

SUPPLY TENSION REGULATOR

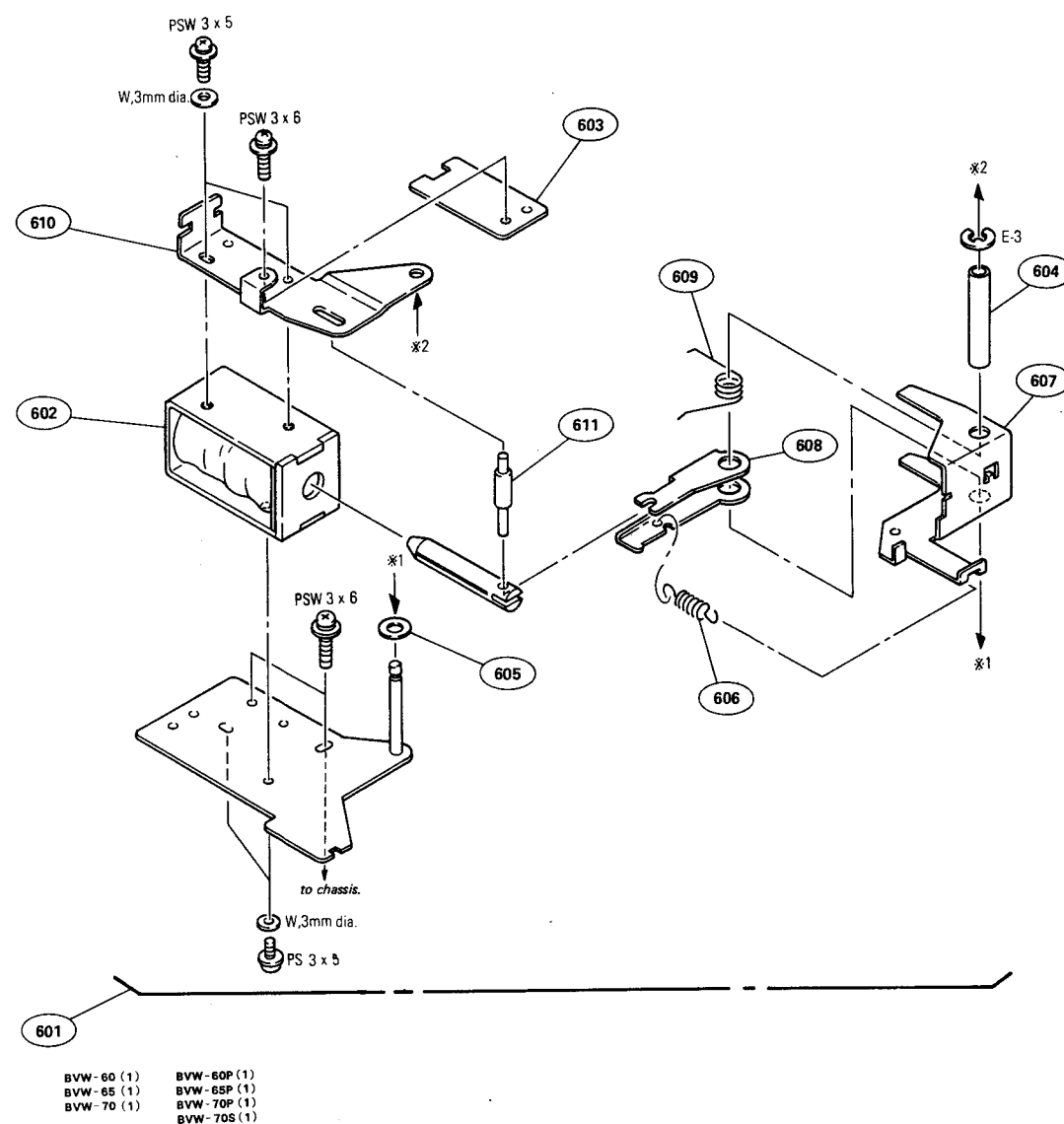
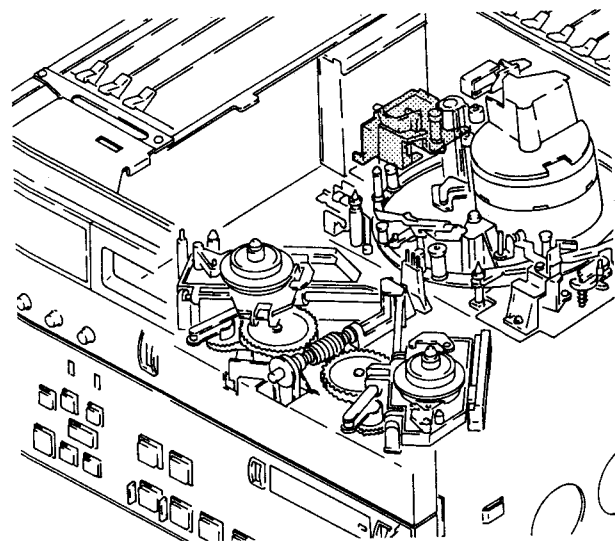
Supply Tension Regulator Block



BVW-60 (1)  
BVW-65 (1)  
BVW-70 (1)  
BVW-60P (1)  
BVW-65P (1)  
BVW-70P (1)  
BVW-70S (1)

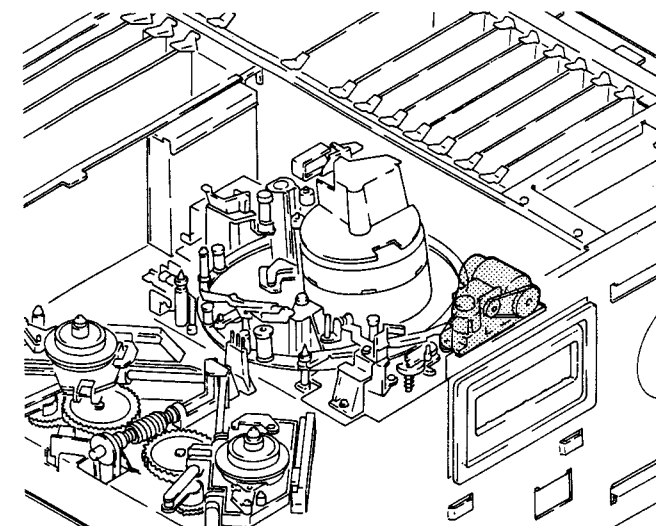
No.	Parts No.	SP	Description
501	A-6742-061-A	s	ARM ASS'Y, S TENSION
502	X-3675-851-0	s	ROLLER ASS'Y, TR
503	X-3717-218-1	o	ARM ASS'Y, RETURN
504	X-3717-219-1	o	HOOK ASS'Y, TENSION REGULATOR
505	X-3717-220-1	o	ARM ASS'Y, TENSION REGULATOR
506	1-611-279-13	o	PRINTED CIRCUIT BOARD, TR-18
507	2-618-901-00	o	SPRING
508	3-437-173-02	o	SCREW, HEAD ADJUSTING
509	3-653-350-00	s	SPRING, COMPRESSION
510	3-675-872-00	o	SPRING, LEAF
511	3-675-885-02	o	PLATE, SHIELD, T-DME
512	3-677-749-03	s	RETAINER, B
513	3-677-752-00	s	NUT, ADJUSTMENT, T
514	3-680-830-01	s	HOLDER, DME
515	3-680-831-00	o	COLLAR, DME
516	3-680-860-01	s	SPRING, TENSION (POWER TENSION)
517	3-717-253-01	s	ROLLER
518	3-717-276-01	o	PROTECTOR
519	3-717-277-02	o	PLATE, ADJUSTMENT, RETURN
520	3-717-278-01	o	BRACKET, TR

### Pinch Press Mechanism Block

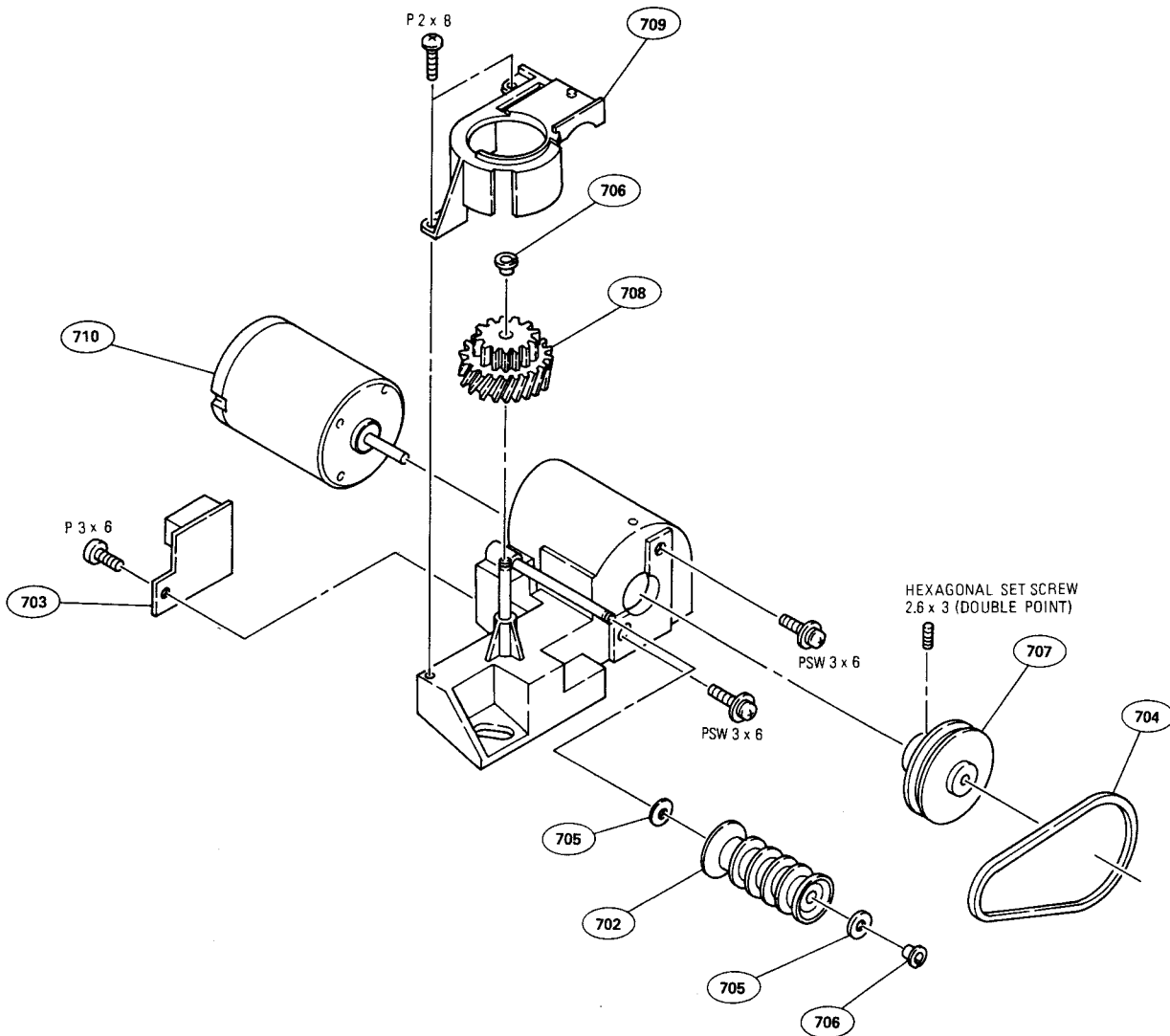
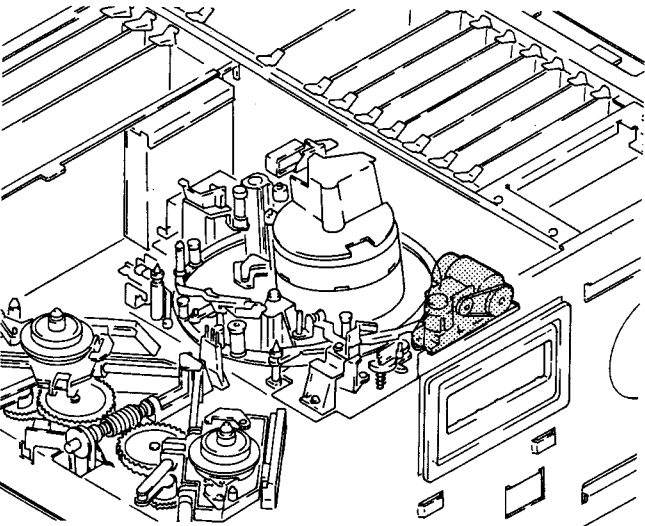
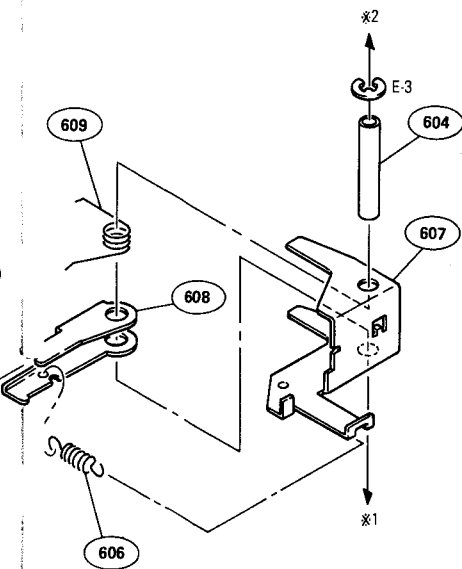


No.	Parts No.	SP	Description
601	A-6749-117-C	o	PRESS ASS'Y, PINCH
602	1-454-338-00	s	SOLENOID, PLUGGER
603	1-622-596-11	o	PRINTED CIRCUIT BOARD, PD-35
604	3-653-382-01	o	SPACER (4 x 25)
605	3-701-441-21	s	WASHER POLY, 4MM DIA. 0.5T
606	3-537-674-03	s	SPRING, TENSION
607	3-717-246-01	o	LEVER, PRESS, P
608	3-717-247-01	o	LIMITER, P
609	3-717-248-01	o	SPRING
610	3-717-249-01	o	STOPPER, P
611	3-717-250-02	o	SHAFT, JOINT, P

### Gear Box Block



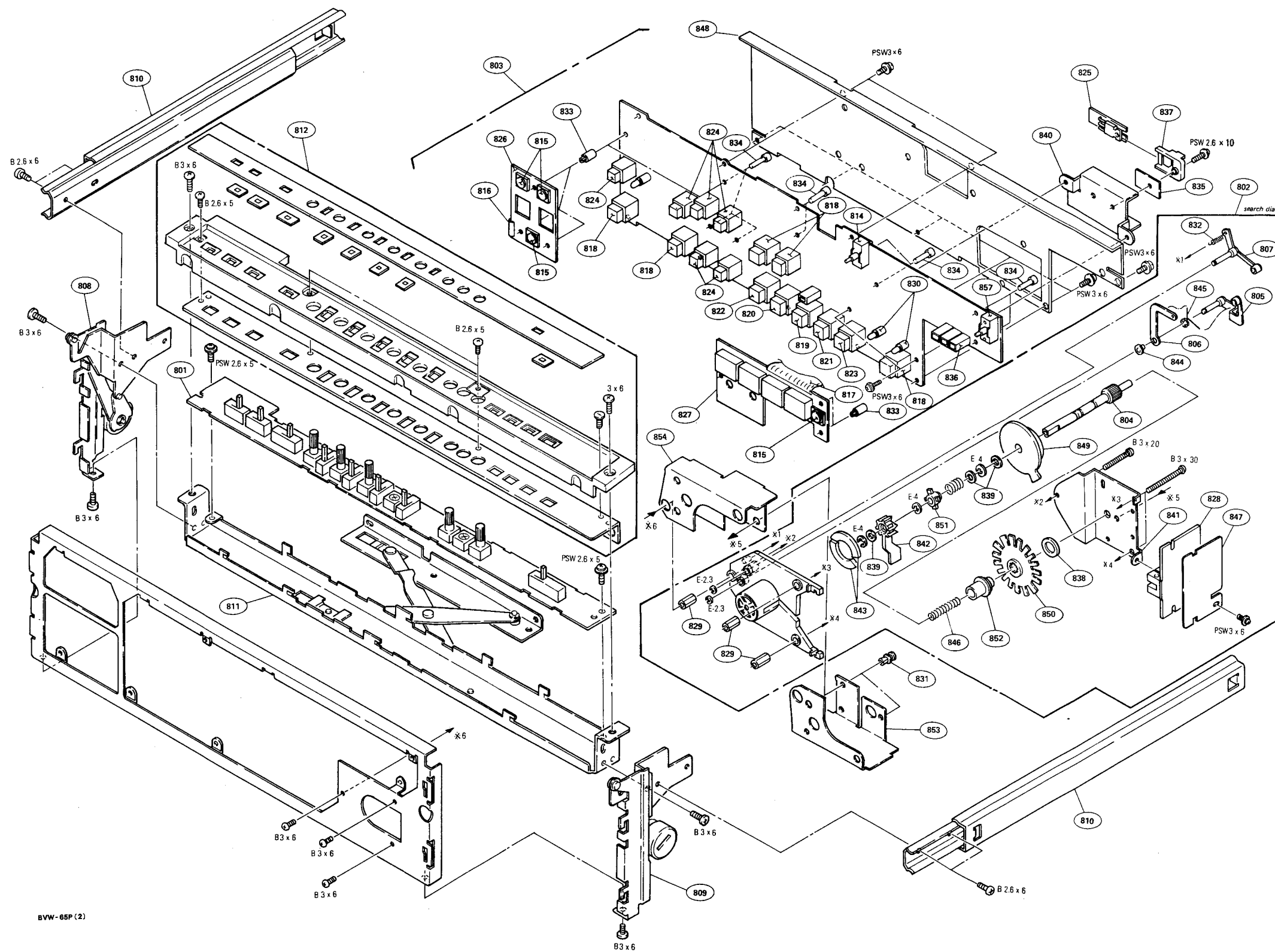
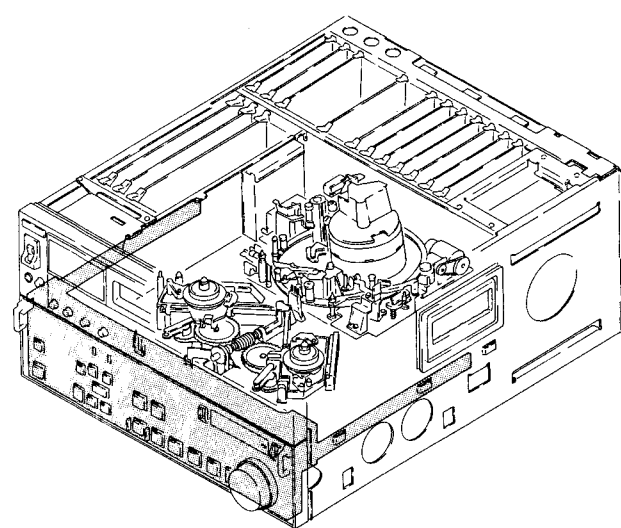
Gear Box Block



- 701 BVW-60 (1) BVW-60P (1)  
BVW-65 (1) BVW-65P (1)  
BVW-70 (1) BVW-70P (1)  
BVW-70S (1)

No.	Parts No.	SP	Description
701	A-6750-213-D	s	BOX ASS'Y, GEAR
702	X-3717-214-2	s	WORM ASS'Y
703	1-622-607-11	o	PRINTED CIRCUIT BOARD, PTC-31
704	3-688-066-01	s	BELT, LM
705	3-701-439-21	s	WASHER POLY 3MM DIA. 0.5T
706	3-703-074-00	s	CAP 3, SHAFT
707	3-717-261-02	o	PULLEY, MOTOR
708	3-717-262-02	s	GEAR, DRIVE
709	3-717-550-01	o	COVER, GEAR BOX
710	8-835-179-01	s	MOTOR, DC MCB2B15

Function Control Chassis Block

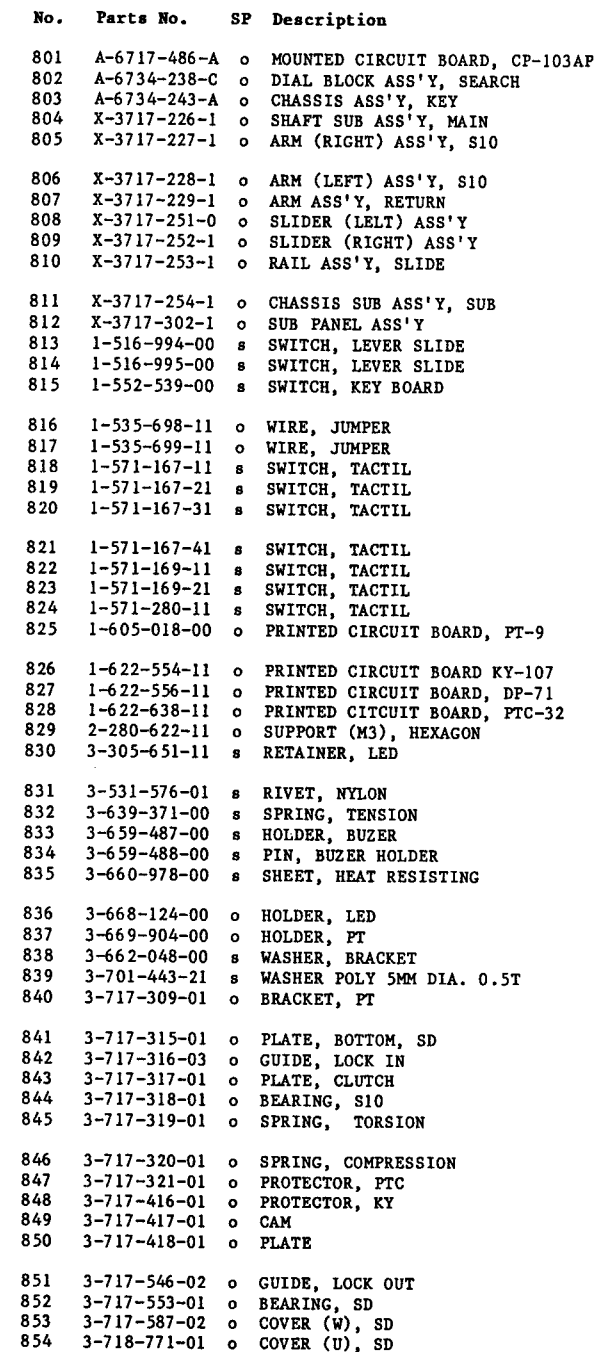


BVW-65P (2)

No.	P
801	A
802	A
803	A
804	X
805	X
806	X
807	X
808	X
809	X
810	X
811	X
812	X
813	1
814	1
815	1
816	1
817	1
818	1
819	1
820	1
821	1
822	1
823	1
824	1
825	1
826	1
827	1
828	1
829	1
830	1
831	1
832	1
833	1
834	1
835	1
836	1
837	1
838	1
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841	1
842	1
843	1
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847	1
848	1
849	1
850	1
851	1
852	1
853	1
854	1

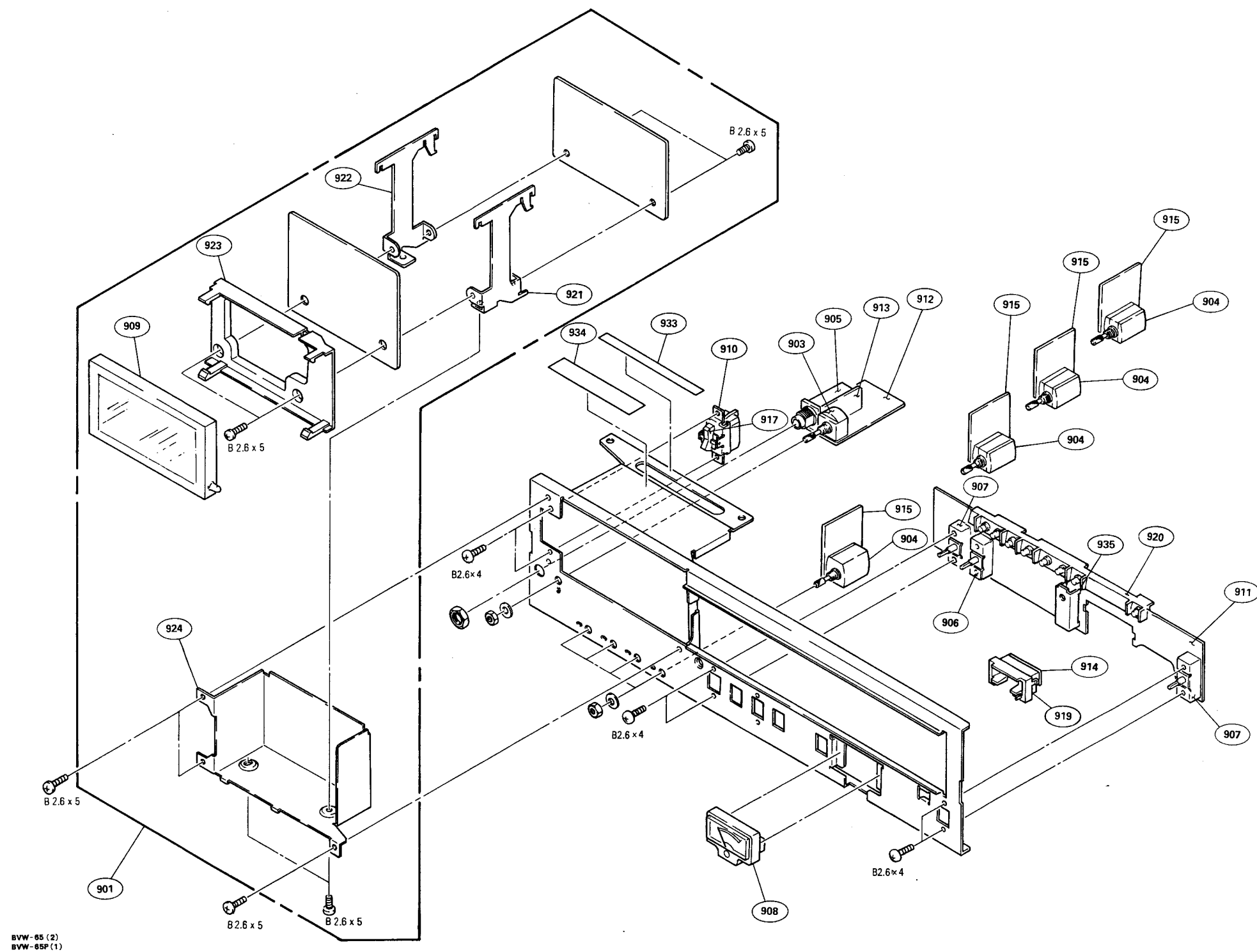
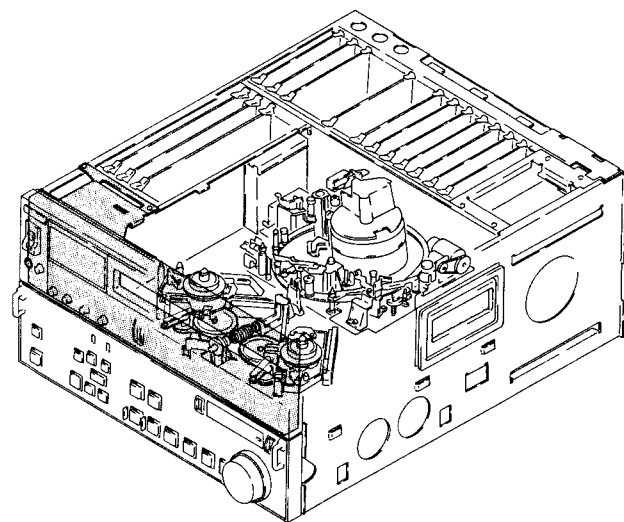


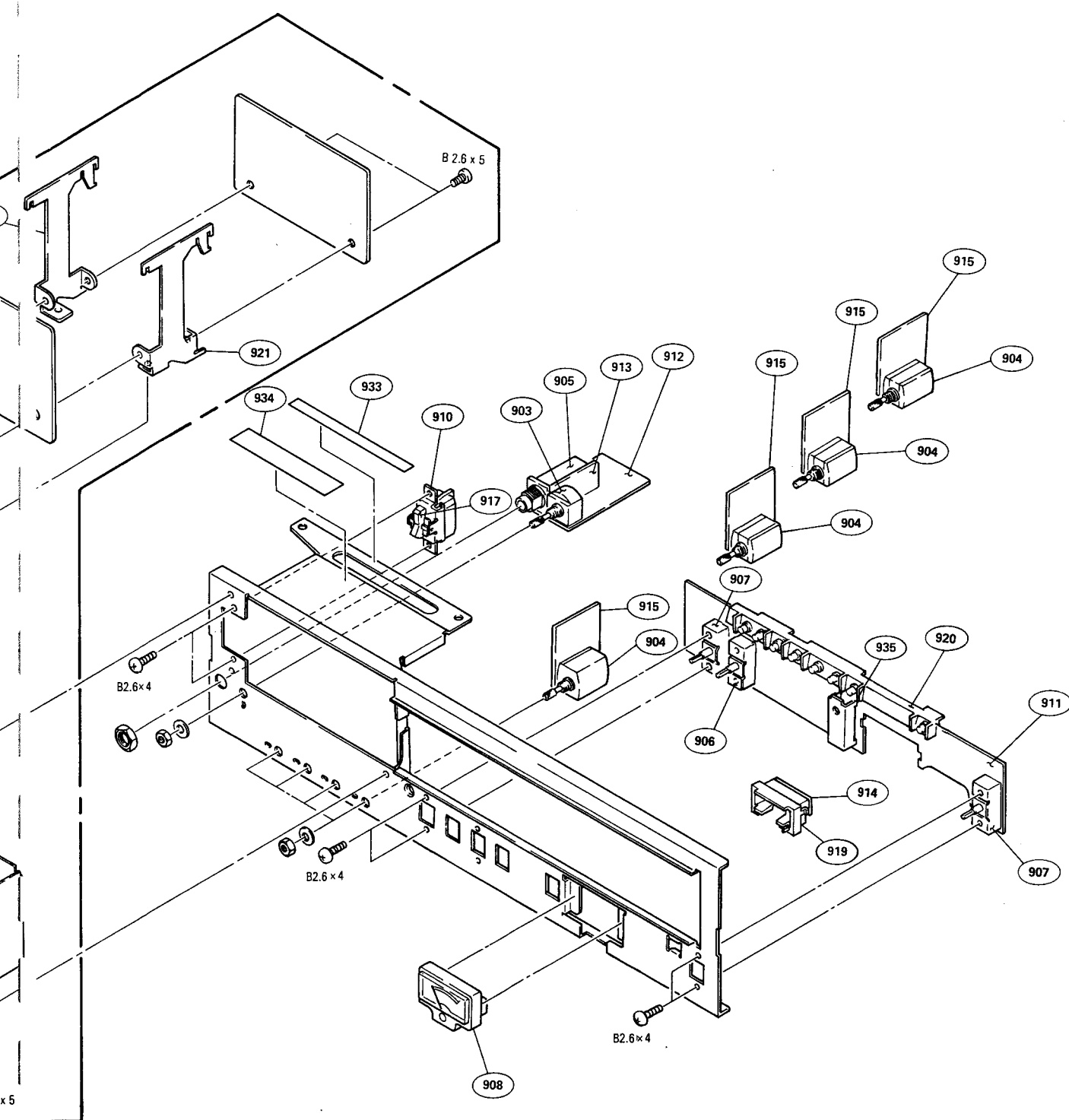
FUNCTION CONTROL



LEVEL CONTROL	LEVEL CONTROL
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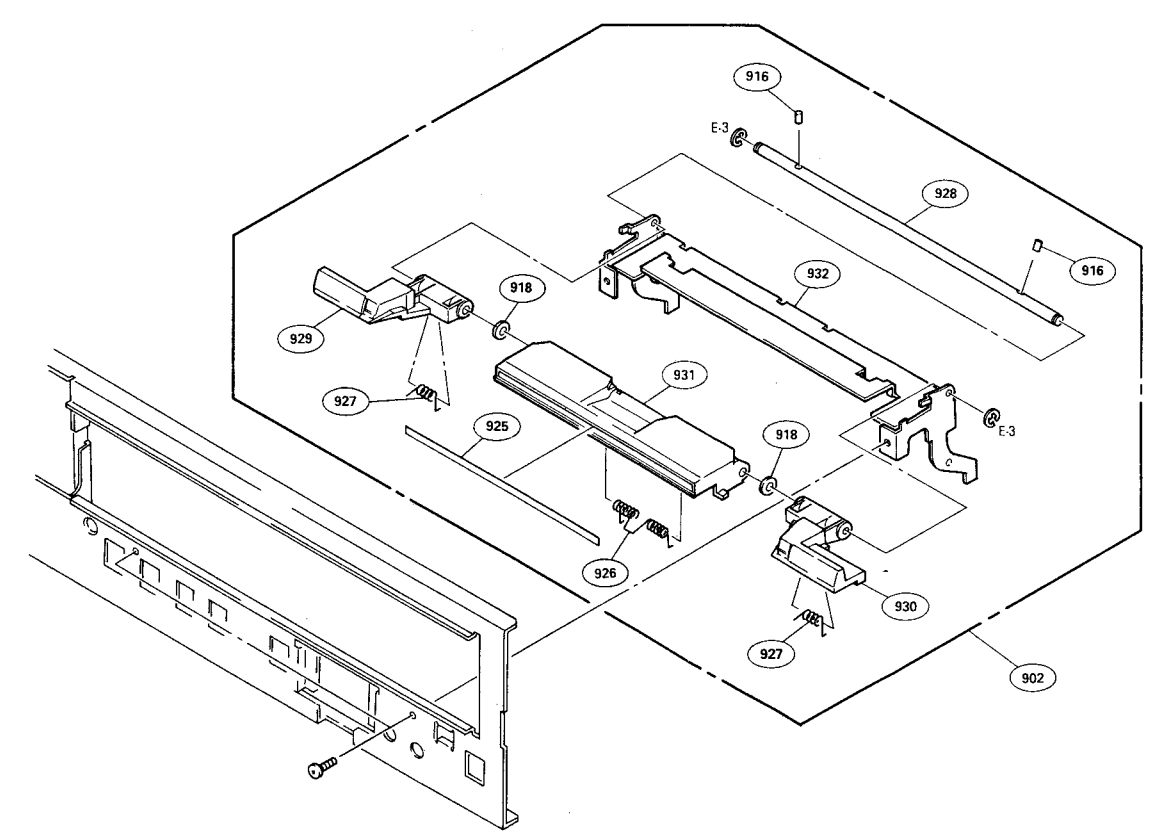
## Level Control Chassis Block





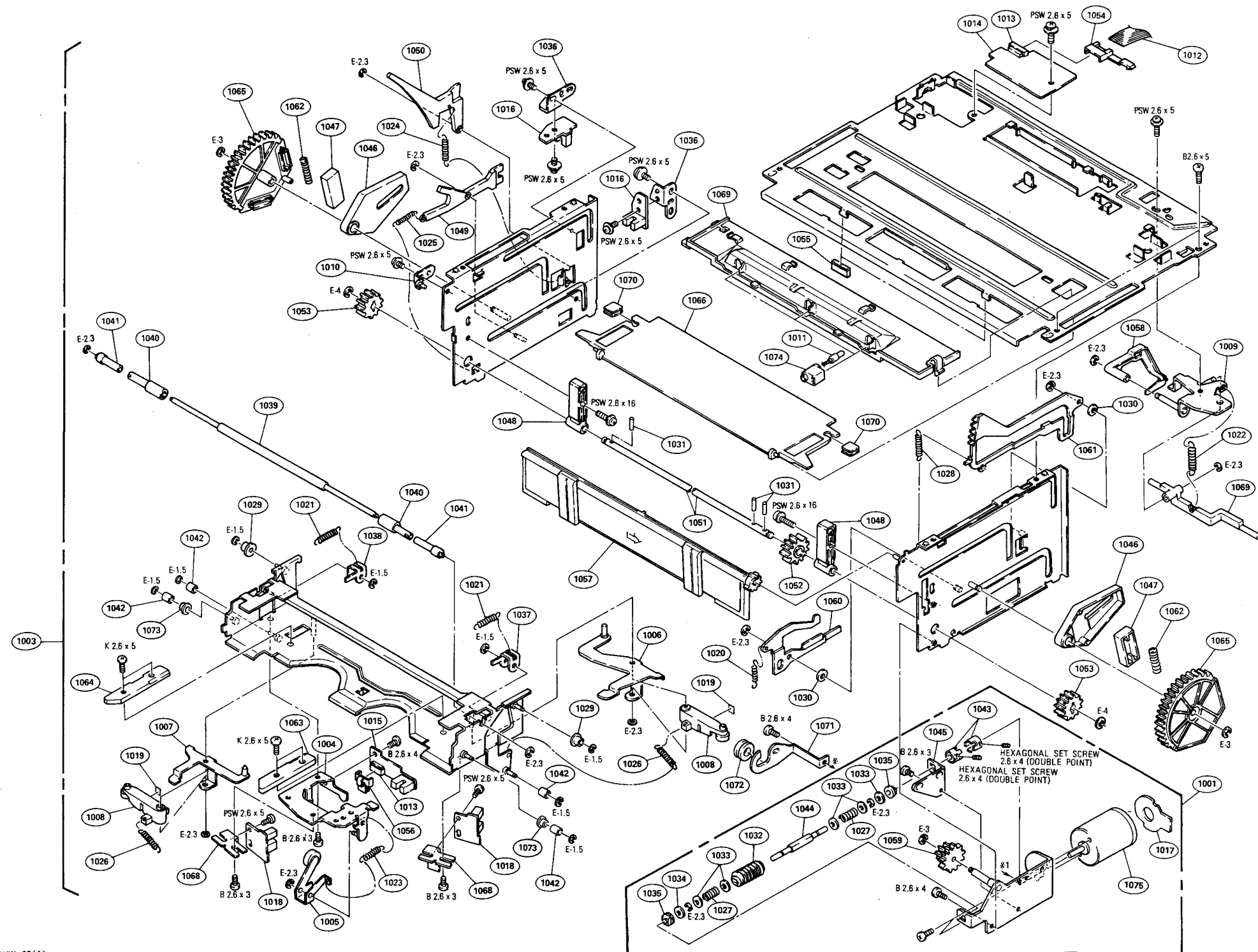
No.	Parts No.	SP	Description
901	A-6730-924-A	o	TUBE ASS'Y, INDICATION
902	A-6751-377-A	o	GUIDE ASS'Y, SC
903	1-230-501-11	s	RES, VAR, CARBON 20K/20K
904	1-237-781-11	s	VAR, CARBON (WITH SW) 10K
905	1-507-863-31	s	JACK, LARGE TYPE
906	1-516-994-00	s	SWITCH, LEVER SLIDE
907	1-516-995-00	s	SWITCH, LEVER SLIDE
908	1-520-494-21	s	METER, LEVEL (RF)
909	1-520-496-11	s	LEVEL METER, AUDIO
910	1-570-117-11	s	SWITCH, LOCKER (AC POWER)
911	1-622-573-13	o	PRINTED CIRCUIT BOARD, SW-144
912	1-622-589-11	o	PRINTED CIRCUIT BOARD, VR-62
913	1-622-590-13	o	PRINTED CIRCUIT BOARD, HP-33
914	1-622-591-11	o	PRINTED CIRCUIT BOARD, DP-72
915	1-622-592-11	o	PRINTED CIRCUIT BOARD, VR-42
916	3-677-193-01	o	PIN, STOPPER
917	3-688-814-01	s	CAP, SWITCH
918	3-701-441-21	s	WASHER POLY 4MM DIA. 0.5T
919	3-717-323-01	o	COVER, METER LED
920	3-717-474-02	o	HOLDER, LED

No.	Parts No.	SP	Description
921	3-717-531-01	o	BRACKET (RIGHT), DP
922	3-717-532-01	o	BRACKET (LEFT), DP
923	3-717-538-03	o	HOLDER, VFD
924	3-717-539-01	o	CASE, INDICATION TUBE
925	3-717-614-01	o	LABEL, C-LOCK OUT
926	3-717-615-01	o	SPRING, C-LOCK OUT
927	3-717-616-01	o	SPRING, SC GUIDE
928	3-717-617-01	o	SHAFT, SC GUIDE
929	3-717-618-01	o	GUIDE L, SC
930	3-717-619-01	o	GUIDE R, SC
931	3-717-620-01	o	PLATE, C-LOCK OUT
932	3-717-621-01	o	BRACKET, SC GUIDE
933	3-717-647-01	o	LABEL (M), PC BOARD (for S/N up to 10769)
	3-727-093-01	o	LABEL (M), PC BOARD (for S/N 10770 and higher)
934	3-717-649-01	o	LABEL (BF), PC BOARD
935	3-717-672-01	o	STOPPER, KY



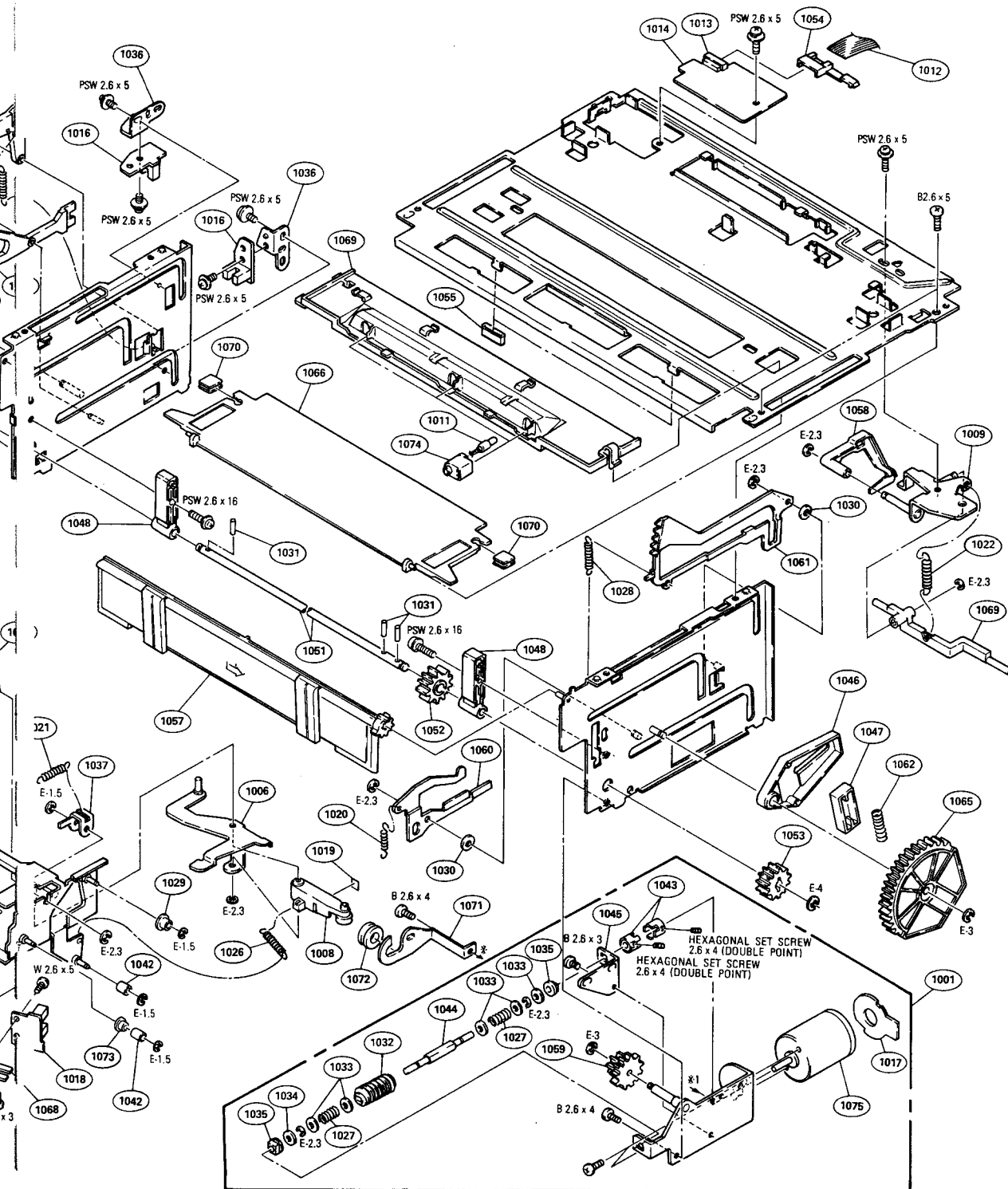
BVW-65(1)  
BVW-65P(1)

S/N No. up to 10191



No.	Par
1001	A-6
1003	A-6
1004	X-3
1005	X-3
1006	X-3
1007	X-3
1008	X-3
1009	X-3
1010	X-3
1011	1-5
1012	1-5
1013	1-5
1014	1-6
1015	1-6
1016	1-6
1017	1-6
1018	1-6
1019	3-3
1020	3-4
1021	3-4
1022	3-4
1023	3-5
1024	3-1
1025	3-5
1026	3-5
1027	3-6
1028	3-6
1029	3-6
1030	3-7
1031	3-7
1032	3-7
1033	3-7
1034	3-7
1035	3-7
1036	3-7
1037	3-7
1038	3-7
1039	3-7
1040	3-7
1041	3-7
1042	3-7
1043	3-7
1044	3-7
1045	3-7
1046	3-7

**BVW-60(1)**  
**BVW-65(1)**  
**BVW-70(1)**  
**BVW-65P(1)**  
**BVW-70P(1)**  
**BVW-60P(1)**



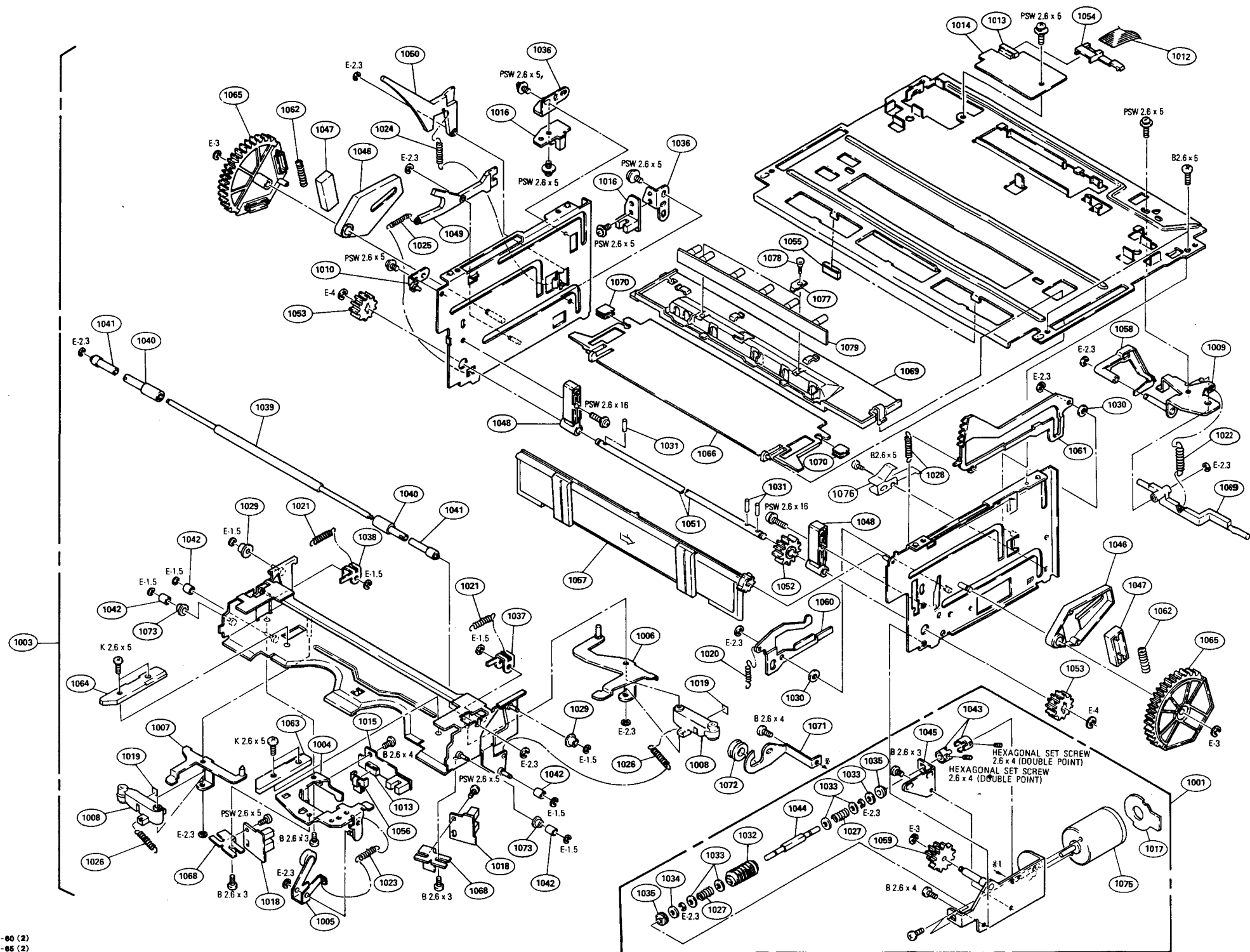
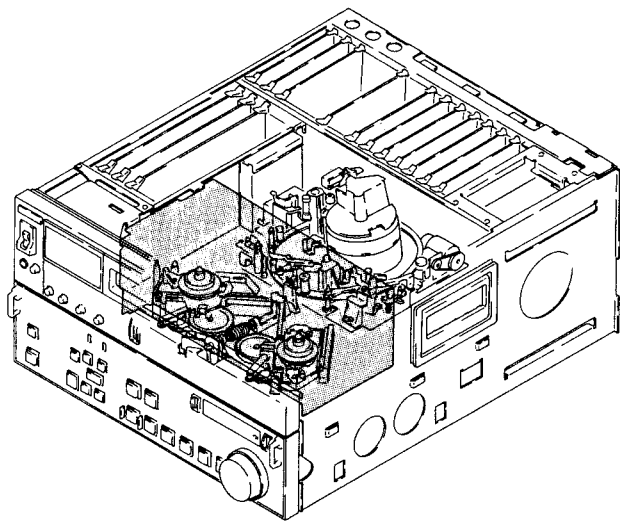
No.	Parts No.	SP	Description
1001	A-6737-178-A	s	MOTOR BLOCK ASS'Y
1003	A-6751-360-D	s	CASSETTE COMPARTMENT ASS'Y
1004	X-3717-230-1	o	DECK ASS'Y, ARM
1005	X-3717-231-1	o	ARM ASS'Y, LS
1006	X-3717-232-1	o	ARM (RIGHT) ASS'Y, CASSETTE IN
1007	X-3717-233-1	o	ARM (LEFT) ASS'Y, CASSETTE IN
1008	X-3717-234-1	o	ARM ASS'Y, PUSH OUT
1009	X-3717-235-1	o	CHASSIS ASS'Y, LID OPEN LEVER
1010	X-3717-236-1	o	BRACKET ASS'Y, DOOR
1011	1-518-508-00	s	LAMP, PILOT
1012	1-559-265-11	o	WIRE, FLEXIBLE CARD
1013	1-563-969-11	o	CONNECTOR, F.P.C, 7P
1014	1-622-602-11	o	PRINTED CIRCUIT BOARD, CL-14
1015	1-622-603-11	o	PRINTED CIRCUIT BOARD, PC-32
1016	1-622-604-11	o	PRINTED CIRCUIT BOARD, PC-33
1017	1-623-198-11	o	PRINTED CIRCUIT BOARD, CCM-2
1018	1-623-267-11	o	PRINTED CIRCUIT BOARD, PC-41
1019	3-329-460-01	o	SPACER
1020	3-437-284-00	s	SPRING, TENSION
1021	3-489-325-01	s	SPRING, TENSION
1022	3-491-360-00	s	SPRING, TENSION
1023	3-509-127-00	s	SPRING, TENSION
1024	3-140-263-XX	s	SPRING, TENSION (23T)
1025	3-531-863-01	s	SPRING, TENSION
1026	3-578-389-00	s	SPRING, TENSION
1027	3-659-324-00	s	SPRING, COMPRESSION
1028	3-668-508-00	s	SPRING, TENSION
1029	3-677-187-00	s	ROLLER, GUIDE
1030	3-701-439-21	s	WASHER POLY 3MM DIA. 0.5T
1031	3-703-358-03	o	PIN, PARALLEL (DIA.2 x 8)
1032	3-717-210-01	s	WORM
1033	3-717-212-01	o	WASHER (B), WORM
1034	3-717-213-01	o	WASHER (A), WORM
1035	3-717-214-01	o	BEARING, WORM
1036	3-717-339-01	o	BRACKET, PHOTO
1037	3-717-346-01	o	ARM (RIGHT), CASSETTE PRESS
1038	3-717-347-01	o	ARM (LEFT), CASSETTE PRESS
1039	3-717-348-01	o	SHAFT, PRESS ROLLER
1040	3-717-349-01	o	ROLLER (S), PRESS
1041	3-717-350-01	o	ROLLER (L), PRESS
1042	3-717-351-01	o	ROLLER (B), GUIDE
1043	3-717-352-01	o	JOINT, MOTOR
1044	3-717-353-01	o	SHAFT, WORM
1045	3-717-354-01	o	BRACKET, WORM
1046	3-717-355-01	o	ARM, DRIVING

No.	Parts No.	SP	Description
1047	3-717-356-01	o	SLIDER, ARM DRIVING
1048	3-717-359-01	o	BEARING, DRIVING GEAR
1049	3-717-361-02	o	ARM (1), DOWN SW
1050	3-717-362-02	o	ARM (2), DOWN SW
1051	3-717-363-01	o	SHAFT, JOINT
1052	3-717-364-01	s	GEAR, JOINT
1053	3-717-365-01	s	GEAR, JOINT DRIVING
1054	3-717-368-01	o	HOLDER (B), F.P.C
1055	3-717-369-03	o	STOPPER, DOOR
1056	3-717-421-02	o	HOLDER (A), F.P.C
1057	3-717-435-04	o	DOOR, CASSETTE
1058	3-717-453-01	s	LEVER, LID OPEN
1059	3-717-454-01	o	WHEEL, WORM
1060	3-717-455-04	o	ARM, DOOR SWITCHING ASSIST
1061	3-717-457-01	o	ARM, DOOR SWITCHING
1062	3-717-458-01	s	SPRING, COMPRESSION
1063	3-717-460-03	o	GUIDE (RIGHT), CASSETTE
1064	3-717-461-03	o	GUIDE (LEFT), CASSETTE
1065	3-717-475-01	s	GEAR, DRIVING
1066	X-3717-365-1	o	REFLECTOR ASS'Y
1067	3-717-584-01	s	LEVER (B), LID OPEN
1068	3-717-585-01	o	BRACKET (B), PHOT
1069	3-717-586-01	o	HOLDER (MAIN), LAMP
1070	3-717-596-01	o	RUBBER, VIBRATION PROOF
1071	3-717-597-01	o	JOINT, PLATE
1072	3-717-598-01	o	JOINT, BEARWG
1073	3-717-599-01	s	ROLLER (C), GUIDE
1074	4-852-933-11	s	HOLDER, LAMP
1075	1-541-376-11	s	MOTOR, DC (DNR-4700A)

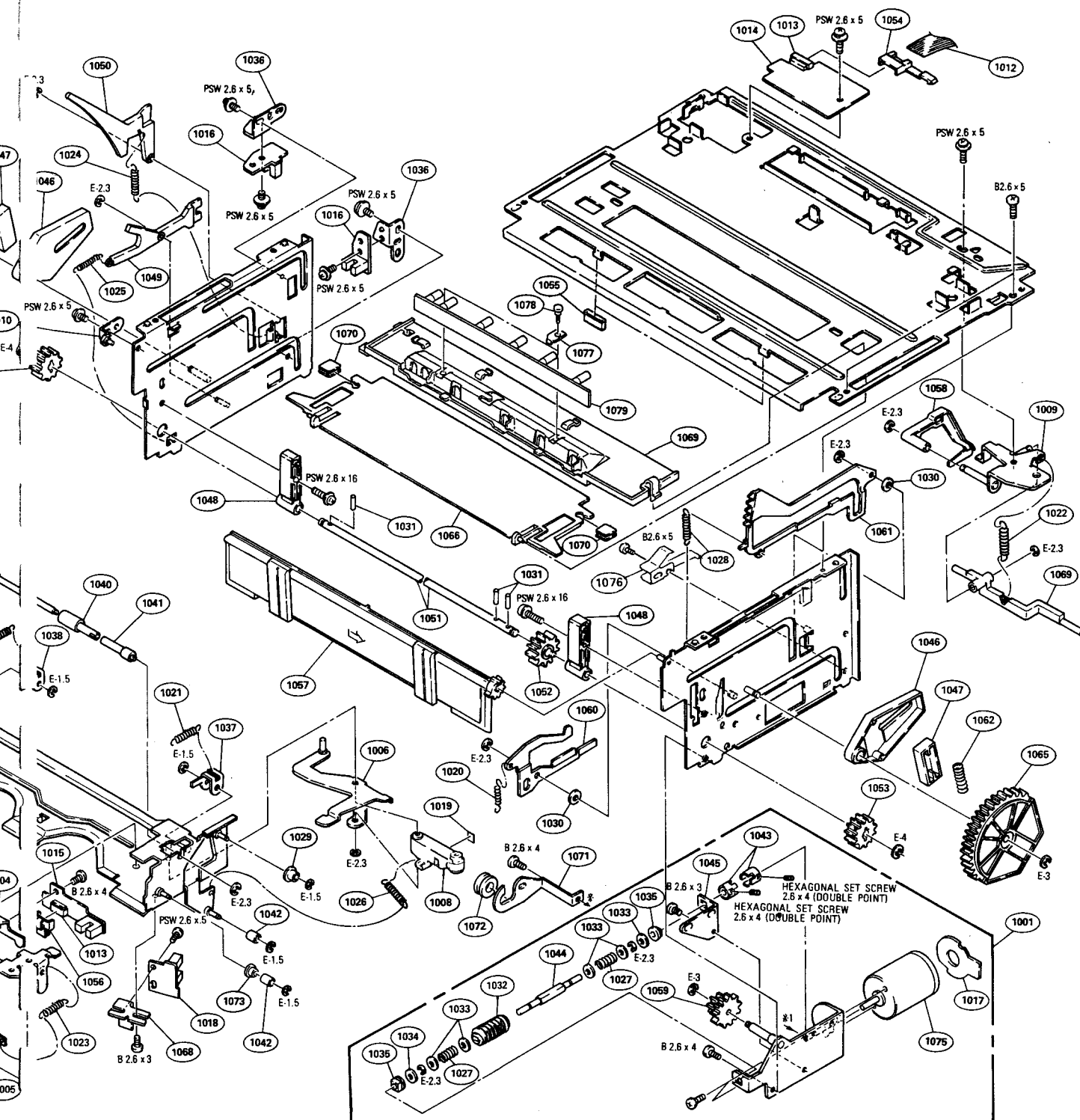
CASSETTE-UP      CASSETTE-UP

### Cassette-up Compartment

S/N 10192 and higher



**BVW-60 (2)**  
**BVW-65 (2)**  
**BVW-70 (2)**  
**BVW-60P (2)**  
**BVW-65P (2)**  
**BVW-70P (2)**  
**BVW-70S (1)**

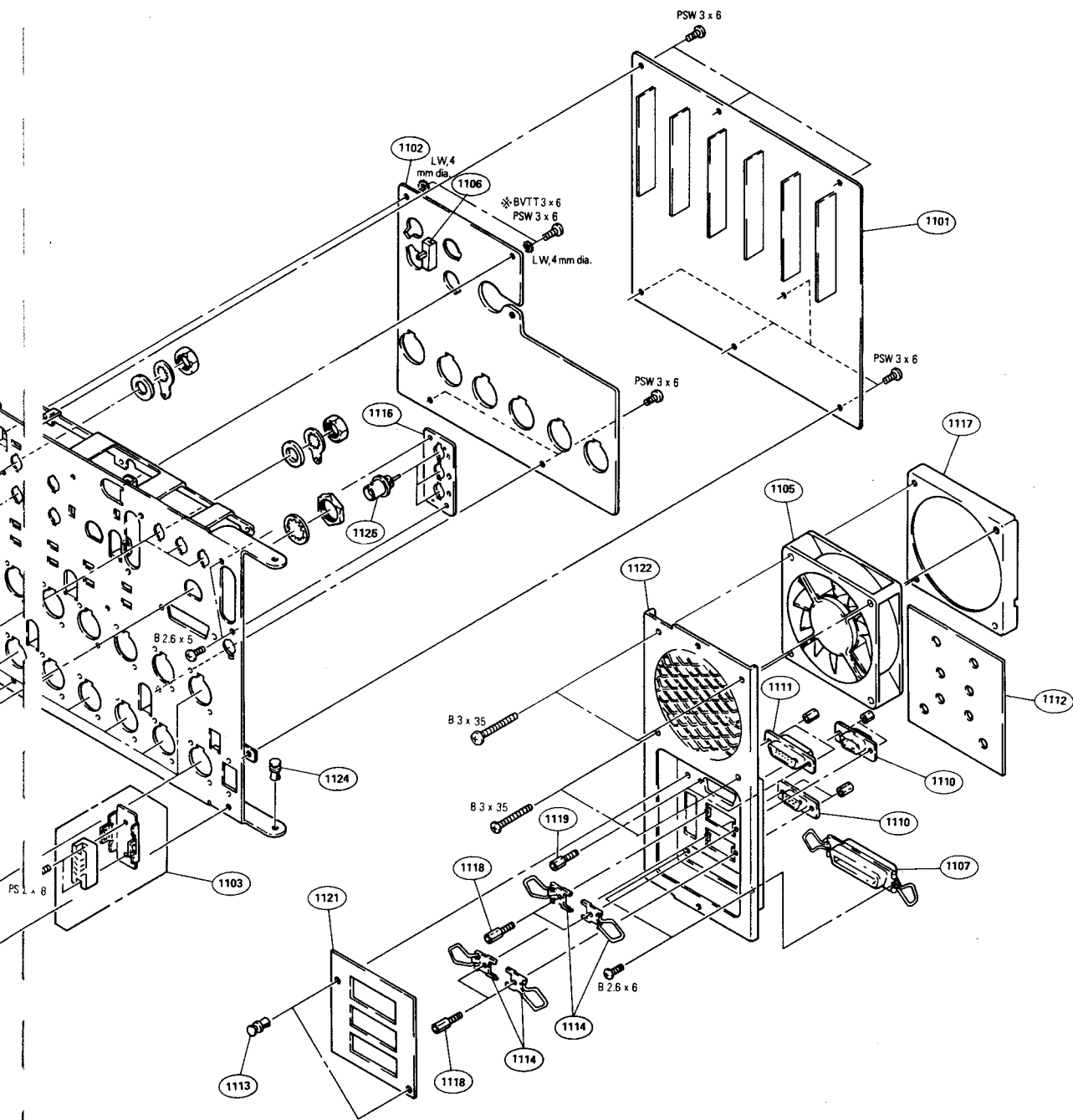


No.	Parts No.	SP	Description
1001	A-6737-178-A	s	MOTOR BLOCK ASS'Y
1003	A-6751-360-F	s	CASSETTE COMPARTMENT ASS'Y
1004	X-3717-360-1	o	DECK ASS'Y, ARM
1005	X-3717-231-1	o	ARM ASS'Y, LS
1006	X-3717-359-1	o	ARM (RIGHT) ASS'Y, CASSETTE IN
1007	X-3717-362-1	o	ARM (LEFT) ASS'Y, CASSETTE IN
1008	X-3717-361-1	o	ARM ASS'Y, PUSH OUT
1009	X-3717-235-1	o	CHASSIS ASS'Y, LID OPEN LEVER
1010	X-3717-236-1	o	BRACKET ASS'Y, DOOR
1012	1-559-265-11	o	WIRE, FLEXIBLE CARD
1013	1-563-969-11	o	CONNECTOR, F.P.C, 7P
1014	1-622-602-11	o	PRINTED CIRCUIT BOARD, CL-14
1015	1-628-786-11	o	PRINTED CIRCUIT BOARD, PC-47
1016	1-622-604-11	o	PRINTED CIRCUIT BOARD, PC-33
1017	1-623-198-11	o	PRINTED CIRCUIT BOARD, CCM-2
1018	1-623-267-11	o	PRINTED CIRCUIT BOARD, PC-41
1019	3-329-460-01	o	SPACER
1020	3-437-284-00	s	SPRING, TENSION
1021	3-489-325-01	s	SPRING, TENSION
1022	3-491-360-00	s	SPRING, TENSION
1023	3-509-127-00	s	SPRING, TENSION
1024	3-140-263-XX	s	SPRING, TENSION (23T)
1025	3-531-863-01	s	SPRING, TENSION
1026	3-578-389-00	s	SPRING, TENSION
1027	3-659-324-00	s	SPRING, COMPRESSION
1028	3-668-508-00	s	SPRING, TENSION
1029	3-677-187-00	s	ROLLER, GUIDE
1030	3-701-439-21	s	WASHER POLY 3MM DIA. 0.5T
1031	3-703-358-03	o	PIN, PARALLEL (DIA.2 x 8)
1032	3-717-210-01	s	WORM
1033	3-717-212-01	o	WASHER (B), WORM
1034	3-717-213-01	o	WASHER (A), WORM
1035	3-717-214-01	o	BEARING, WORM
1036	3-717-339-01	o	BRACKET, PHOTO
1037	3-717-346-01	o	ARM (RIGHT), CASSETTE PRESS
1038	3-717-347-01	o	ARM (LEFT), CASSETTE PRESS
1039	3-717-348-01	o	SHAFT, PRESS ROLLER
1040	3-717-349-01	o	ROLLER (S), PRESS
1041	3-717-350-01	o	ROLLER (L), PRESS
1042	3-717-351-01	o	ROLLER (B), GUIDE
1043	3-717-352-01	o	JOINT, MOTOR
1044	3-717-353-01	o	SHAFT, WORM
1045	3-717-354-01	o	BRACKET, WORM
1046	3-717-355-01	o	ARM, DRIVING
1047	3-717-356-01	o	SLIDER, ARM DRIVING

No.	Parts No.	SP	Description
1048	3-717-359-01	o	BEARING, DRIVING GEAR
1049	3-717-361-02	o	ARM (1), DOWN SW
1050	3-717-362-02	o	ARM (2), DOWN SW
1051	3-717-363-01	o	SHAFT, JOINT
1052	3-717-364-01	s	GEAR, JOINT
1053	3-717-365-01	s	GEAR, JOINT DRIVING
1054	3-717-368-01	o	HOLDER (B), F.P.C
1055	3-717-369-03	o	STOPPER, DOOR
1056	3-717-421-02	o	HOLDER (A), F.P.C
1057	3-717-435-04	o	DOOR, CASSETTE
1058	3-717-453-01	s	LEVER, LID OPEN
1059	3-717-454-01	o	WHEEL, WORM
1060	3-717-455-04	o	ARM, DOOR SWITCHING ASSIST
1061	3-717-457-01	o	ARM, DOOR SWITCHING
1062	3-717-458-01	s	SPRING, COMPRESSION
1063	3-717-460-03	o	GUIDE (RIGHT), CASSETTE
1064	3-717-461-03	o	GUIDE (LEFT), CASSETTE
1065	3-717-475-01	s	GEAR, DRIVING
1066	X-3717-365-2	o	REFLECTOR ASS'Y
1067	3-717-584-01	s	LEVER (B), LID OPEN
1068	3-717-585-01	o	BRACKET (B), PHOT
1069	3-717-586-04	o	HOLDER (MAIN), LAMP
1070	3-717-596-01	o	RUBBER, VIBRATION PROOF
1071	3-717-597-01	o	JOINT, PLATE
1072	3-717-598-01	o	JOINT, BEARWG
1073	3-717-599-01	s	ROLLER (C), GUIDE
1075	1-541-376-11	s	MOTOR, DC (DNR-4700A)
1076	3-727-017-02	o	PLATE, GROUND
1077	3-738-709-01	s	PLATE
1078	3-646-090-01	s	RIVET
1079	A-6724-835-A	o	MOUNTED CIRCUIT BOARD, CL-24



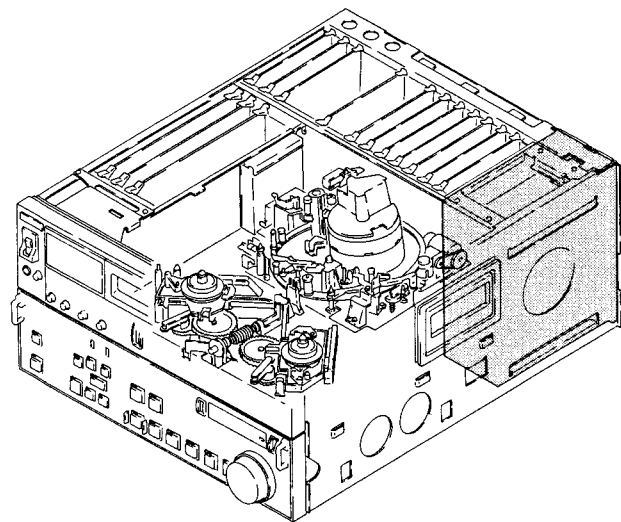




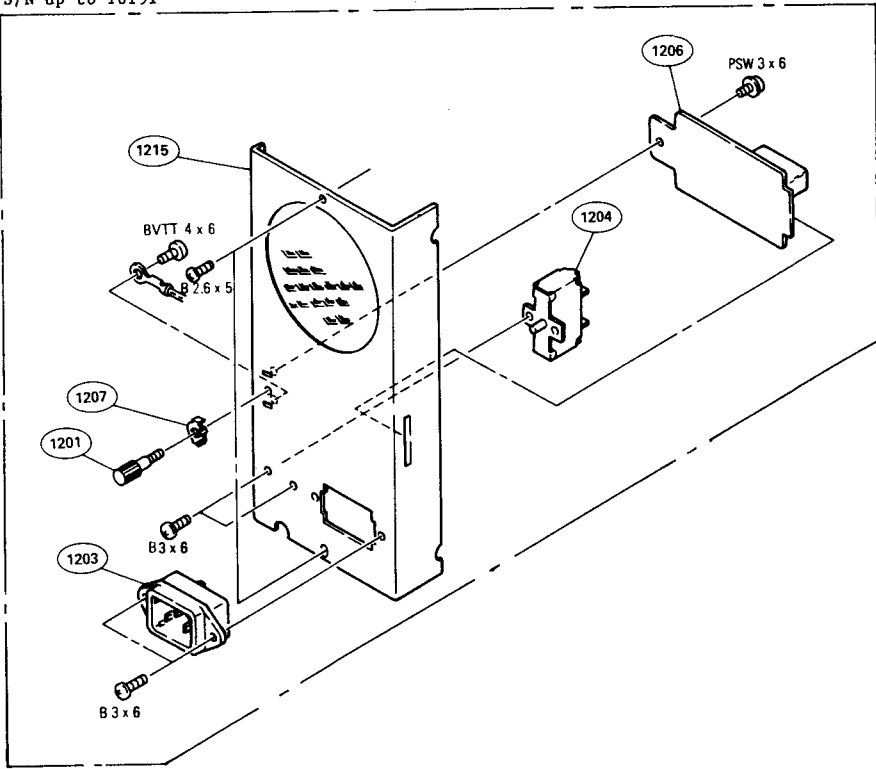
No.	Parts No.	SP	Description
1101	A-6713-420-A	o	MOUNTED CIRCUIT BOARD, CP-161A
1102	A-6729-737-A	o	MOUNTED CIRCUIT BOARD, CP-101A
1103	1-509-095-00	s	SOCKET, MULTI (8P)
1104	1-509-176-51	s	CONNECTOR, 3P
1105	1-541-431-31	s	MOTOR, DC FAN
1106	1-570-157-21	s	SWITCH, SLIDE
1107	1-561-028-00	s	CONNECTOR, 36P
1108	1-561-781-21	s	CONNECTOR, BNC (RECEPTACLE)
1109	1-562-160-00	s	CONNECTOR (R-F) 12P
1110	1-563-890-11	s	SOCKET, D-SUB CONNECTOR 9P
1111	1-566-441-11	s	PIN, D-SUB CONNECTOR 15P
1112	1-624-153-11	o	PRINTED CIRCUIT BOARD, RM-57
1113	3-531-576-01	s	RIVET
1114	3-668-460-00	o	SPRING
1116	3-717-325-03	o	BRACKET, CONNECTOR
1117	3-717-326-01	o	BRACKET, FAN COVER
1118	3-717-327-01	o	SCREW (9P), CONNECTOR
1119	3-717-328-01	o	SCREW (15P), CONNECTOR
1121	3-717-420-01	o	PLATE, ORNAMENTAL, PANEL
1122	3-717-485-01	o	PANEL (L), REAR
1123	3-717-663-02	s	PLATE (P), ORNAMENTAL, CONNECTOR
1124	4-818-403-01	s	RIVET
1125	1-561-781-11	s	CONNECTOR, BNC (RECEPTACLE)

\* The screws (BVT 3 x 6) are used for S/N 10192 and higher.

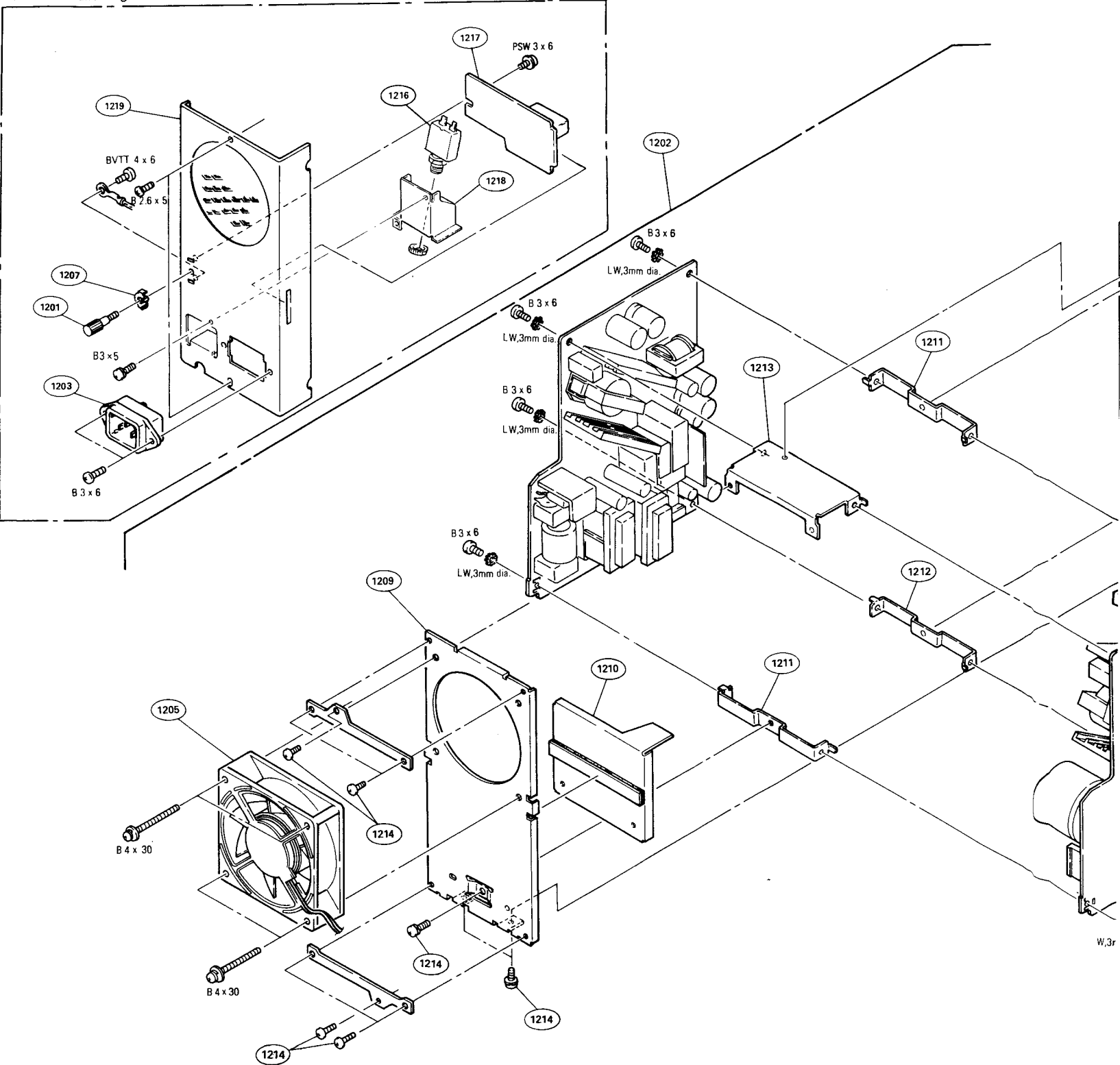
Switching Regulator Block



S/N up to 10191

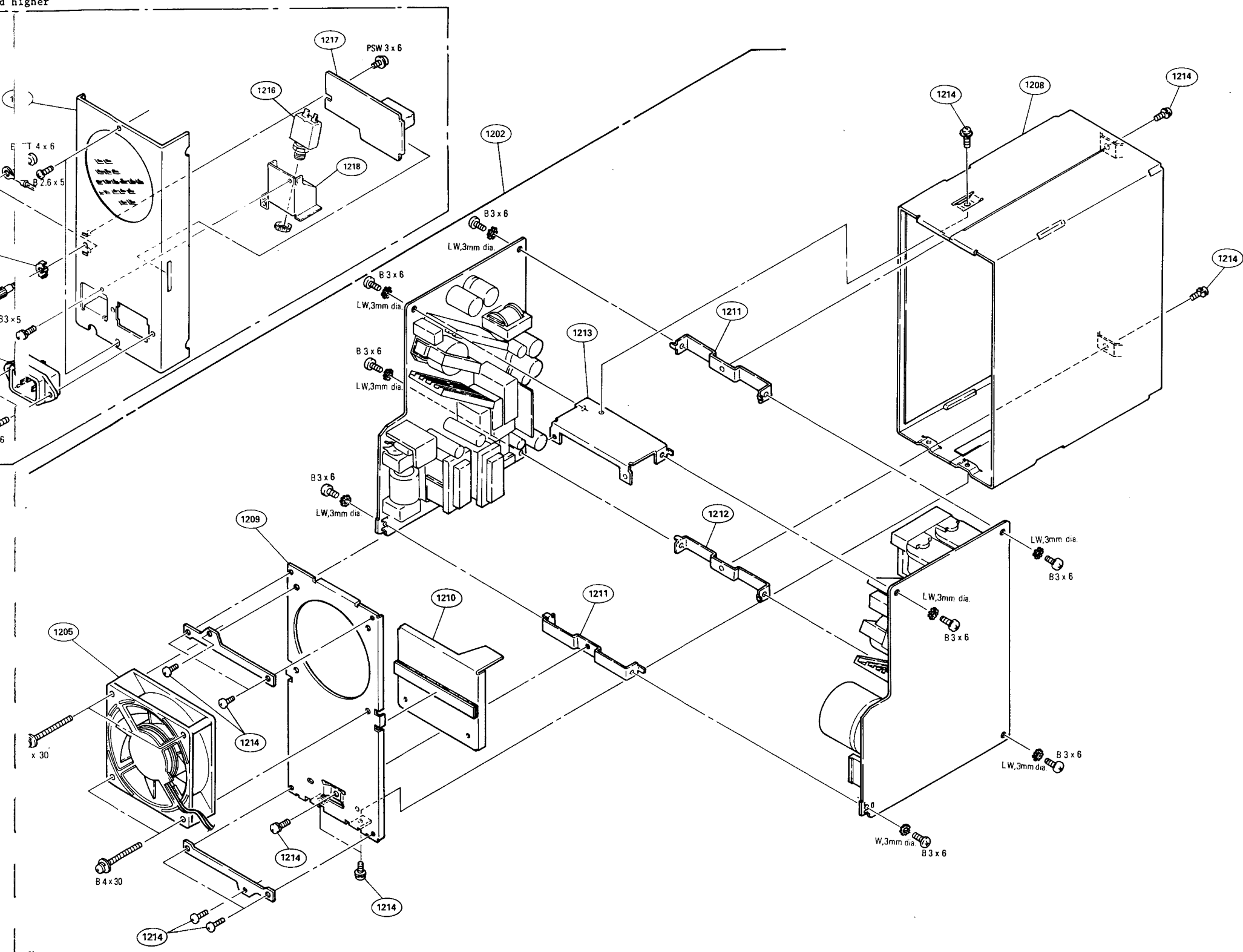


S/N 10192 and higher



- BVW-80 (2)
- BVW-85 (2)
- BVW-70 (2)
- BVW-80P (2)
- BVW-85P (2)
- BVW-70P (2)

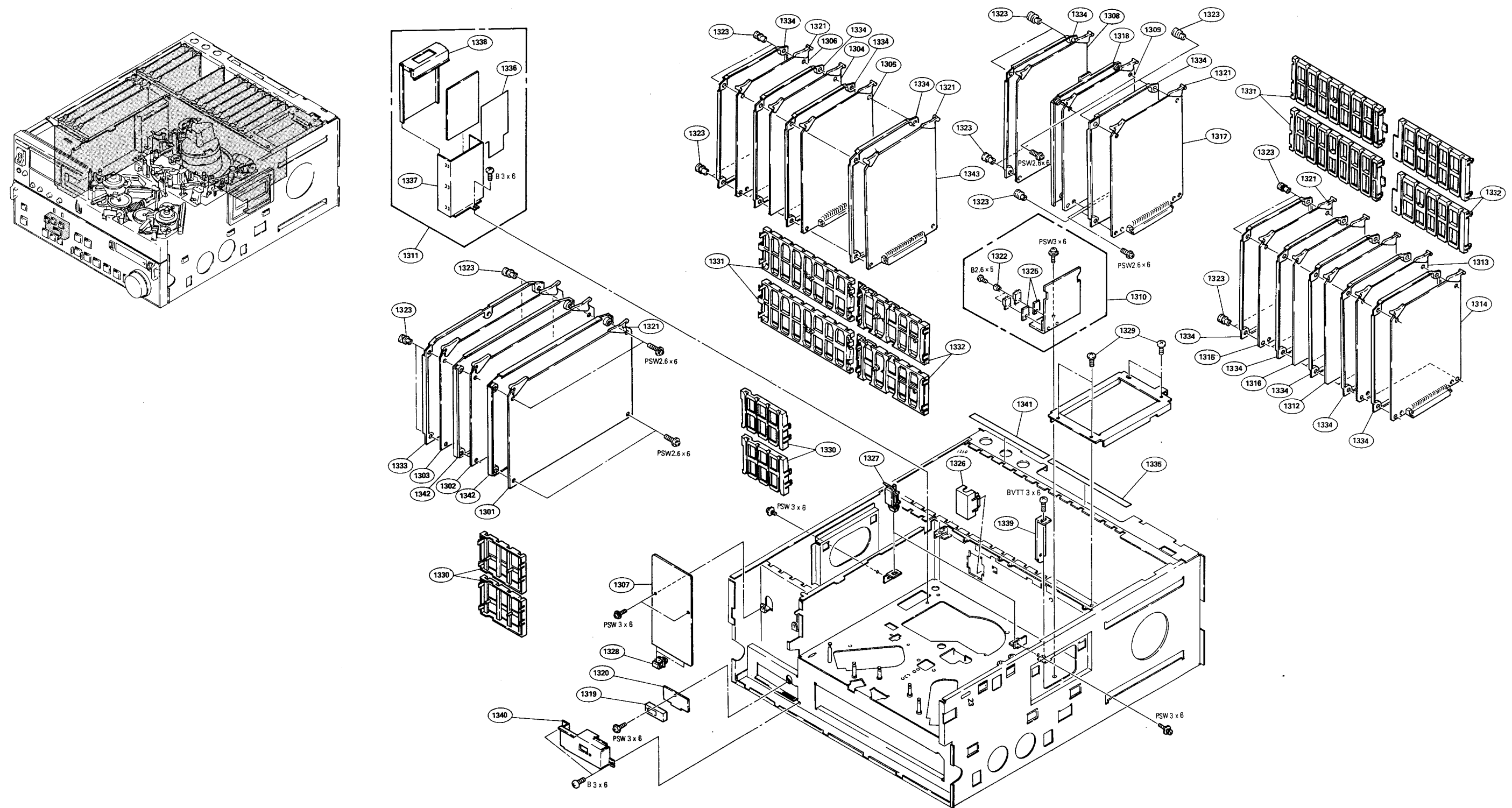
d higher

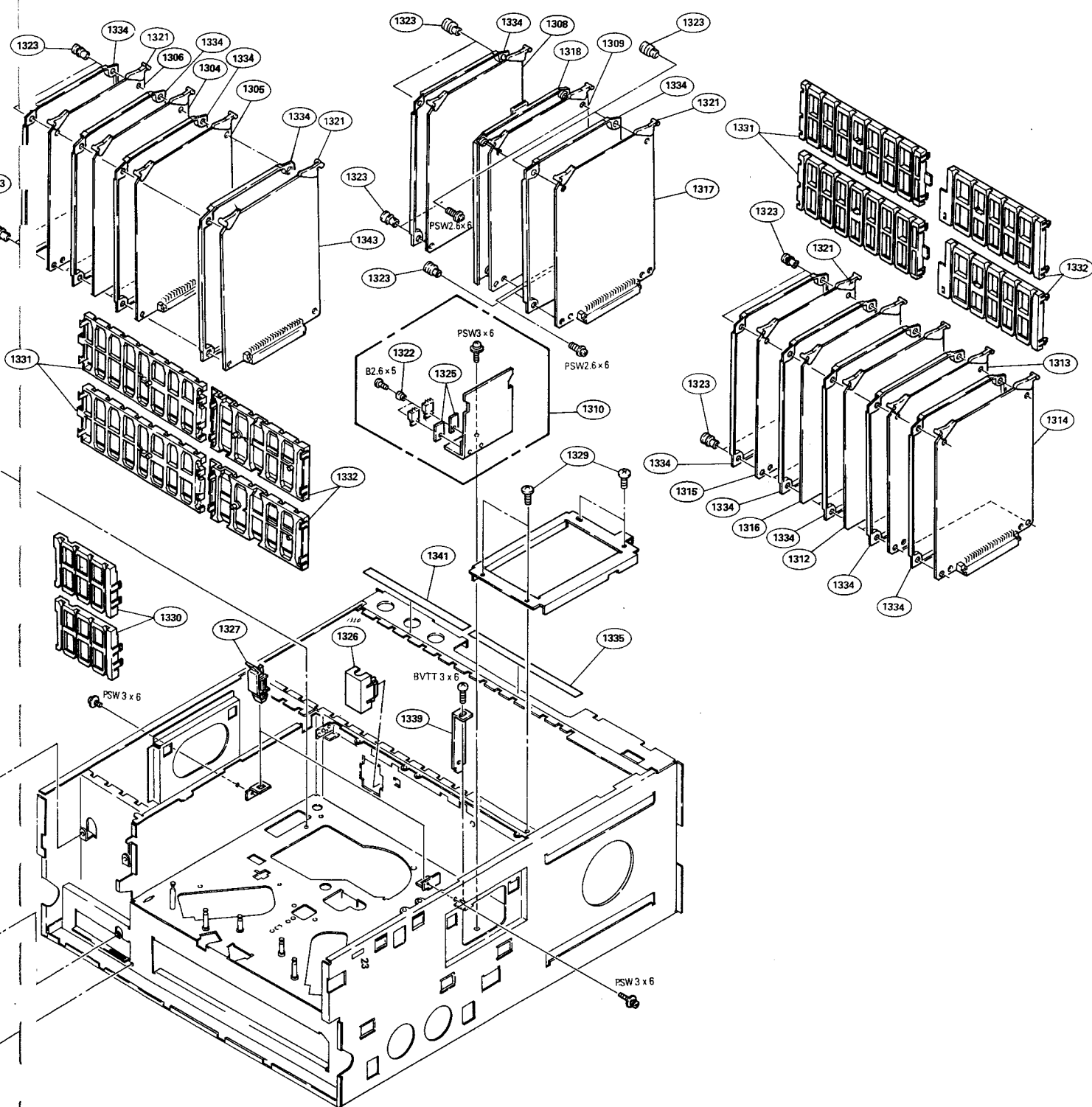


No.	Parts No.	SP	Description
1201	X-2068-004-0	s	TERMINAL ASS'Y
1202	1-413-307-24	s	REGULATOR, SWITCHING (UR-21B)
1203	1-560-222-21	s	3P INLET
1204	1-532-545-51	s	BREAKER, CIRCUIT
1205	1-541-431-31	s	MOTOR, DC FAN
1206	1-622-608-11	o	PRINTED CIRCUIT BOARD, AC-81
	1-628-132-12	o	PRINTED CIRCUIT BOARD, AC-96
1207	2-068-008-00	s	WASHER
1208	2-403-696-01	o	CASE
1209	2-403-697-11	o	LID, CASE
1210	2-431-695-01	o	SHEET (IS-UR21-S), INSULATING
1211	2-434-441-01	o	BRACKET
1212	2-434-441-11	o	BRACKET
1213	2-434-457-01	o	BRACKET, LS-UR21-S
1214	3-703-108-01	s	SCREW +BV 3 x 6, S TIGHT
1215	3-717-434-01	o	PANEL (R), REAR
1216	1-576-036-11	s	BREAKER, CIRCUIT
1217	1-628-132-11	o	PRINTED CIRCUIT BOARD, AC-96
1218	3-727-029-01	o	BRACKET, BREAKER
1219	3-727-030-01	o	PANEL (R), REAR

W- (2)  
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W-70 (2)  
W-60P (2)  
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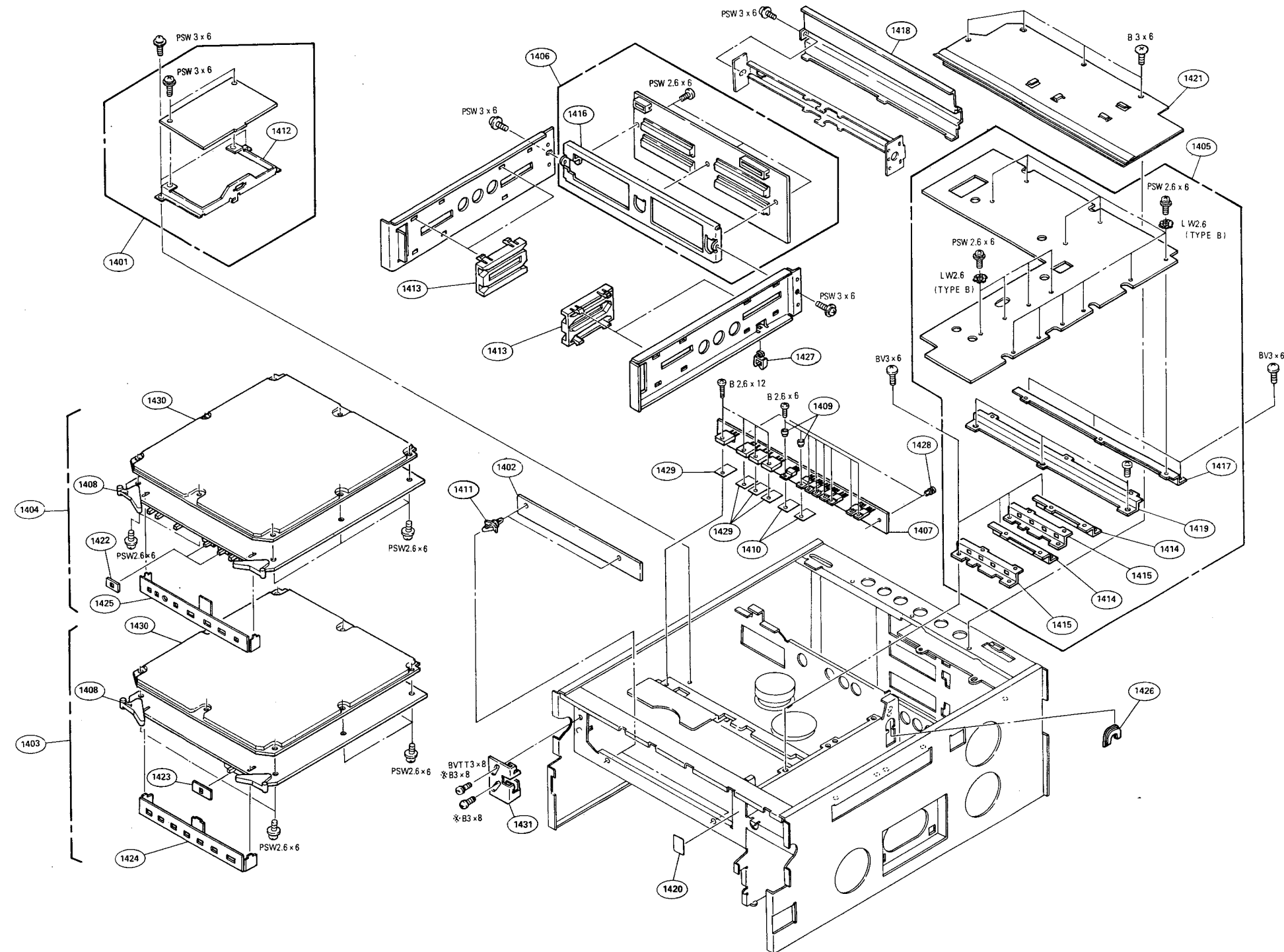
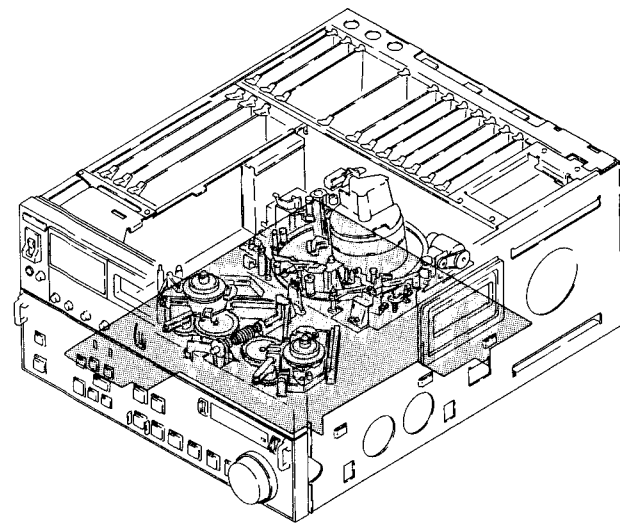
Printed Circuit Block (1)

**BVW-65P (1)**



No.	Parts NO.	SP	Description
1301	A-6711-904-B	o	MOUNTED CIRCUIT BOARD, DM-56P
1302	A-6711-888-A	o	MOUNTED CIRCUIT BOARD, TBC-7P (for S/N up to 10769)
	A-6727-094-A	o	MOUNTED CIRCUIT BOARD, TBC-7D (for S/N 10770 and higher)
1303	A-6711-889-C	o	MOUNTED CIRCUIT BOARD, TBC-8P (for S/N up to 10769)
	A-6727-078-A	o	MOUNTED CIRCUIT BOARD, TBC-12P (for S/N 10770 and higher)
1304	A-6711-891-A	o	MOUNTED CIRCUIT BOARD, EN-48P
1305	A-6711-953-A	o	MOUNTED CIRCUIT BOARD, VO-18AP
1306	A-6711-890-A	o	MOUNTED CIRCUIT BOARD, TBC-9P
1307	A-6713-916-A	o	MOUNTED CIRCUIT BOARD, BF-28A
1308	A-6713-914-A	o	MOUNTED CIRCUIT BOARD, AFM-1A
1309	A-6713-330-B	o	MOUNTED CIRCUIT BOARD, AU-118P
1310	A-6715-353-A	o	MOUNTED CIRCUIT BOARD, SE-57
1311	A-6715-355-A	o	MOUNTED CIRCUIT BOARD, DT-15
1312	A-6715-386-A	o	MOUNTED CIRCUIT BOARD, SV-84P
1313	A-6715-359-A	o	MOUNTED CIRCUIT BOARD, DT-13
1314	A-6715-387-A	o	MOUNTED CIRCUIT BOARD, DT-14P
1315	A-6715-394-A	o	MOUNTED CIRCUIT BOARD, SV-82A
1316	A-6715-403-A	o	MOUNTED CIRCUIT BOARD, SV-83B
1317	A-6717-488-A	o	MOUNTED CIRCUIT BOARD, TC-40AP
1318	X-3717-256-1	o	PLATE (S) ASS'Y, SHIELD, CARD
1319	1-548-152-11	o	HOURS METER, DIGITAL
1320	1-622-595-11	o	PRINTED CIRCUIT BOARD, HC-11
1321	2-251-622-11	s	LEVER, PC BOARD
1322	2-371-561-00	s	BUSHING (P), INSULATING
1323	3-531-576-01	s	RIVET
1324	3-646-090-11	s	RIVET
1325	3-660-978-00	s	SHEET, HEAT RESISTING
1326	3-677-741-00	o	GUARD, AIR
1327	3-682-047-01	o	HOLDER (A), PC BOARD
1328	3-703-072-00	o	HOLDER, PCB
1329	3-703-108-01	s	SCREW
1330	3-717-633-03	o	GUIDE (P) (M), PC BOARD
1331	3-717-430-01	o	GUIDE (LL), PCB
1332	3-717-431-01	o	GUIDE (RL), PCB
1333	3-717-472-03	o	INSULATOR (M), CARD
1334	3-717-473-01	o	INSULATOR (S), CARD
1335	3-725-068-01	o	LABEL (RL) (DTPB), PC BOARD
1336	3-717-533-01	o	INSULATOR, DT
1337	3-717-540-01	o	BRACKET, DT
1338	3-717-541-02	o	CASE, SHIELD, DT
1339	3-717-577-01	o	PROTECTOR, CASSETTE COMPARTMENT
1340	3-717-583-01	o	PLATE, INDICATION
1341	3-721-876-02	o	LABEL (P) (LL) (PB), PC BOARD
1342	X-3717-255-1	o	PLATE (M) ASS'Y, SHIELD, CARD
1343	A-6711-942-A	o	MOUNTED CIRCUIT BOARD, DEC-39A (for S/N up to 10669)
1343	A-6727-076-A	o	MOUNTED CIRCUIT BOARD, DEC-46AP (for S/N 10670 and higher)

Printed Circuit Block (2)



**BVW-65P (2)**

19-38

No.

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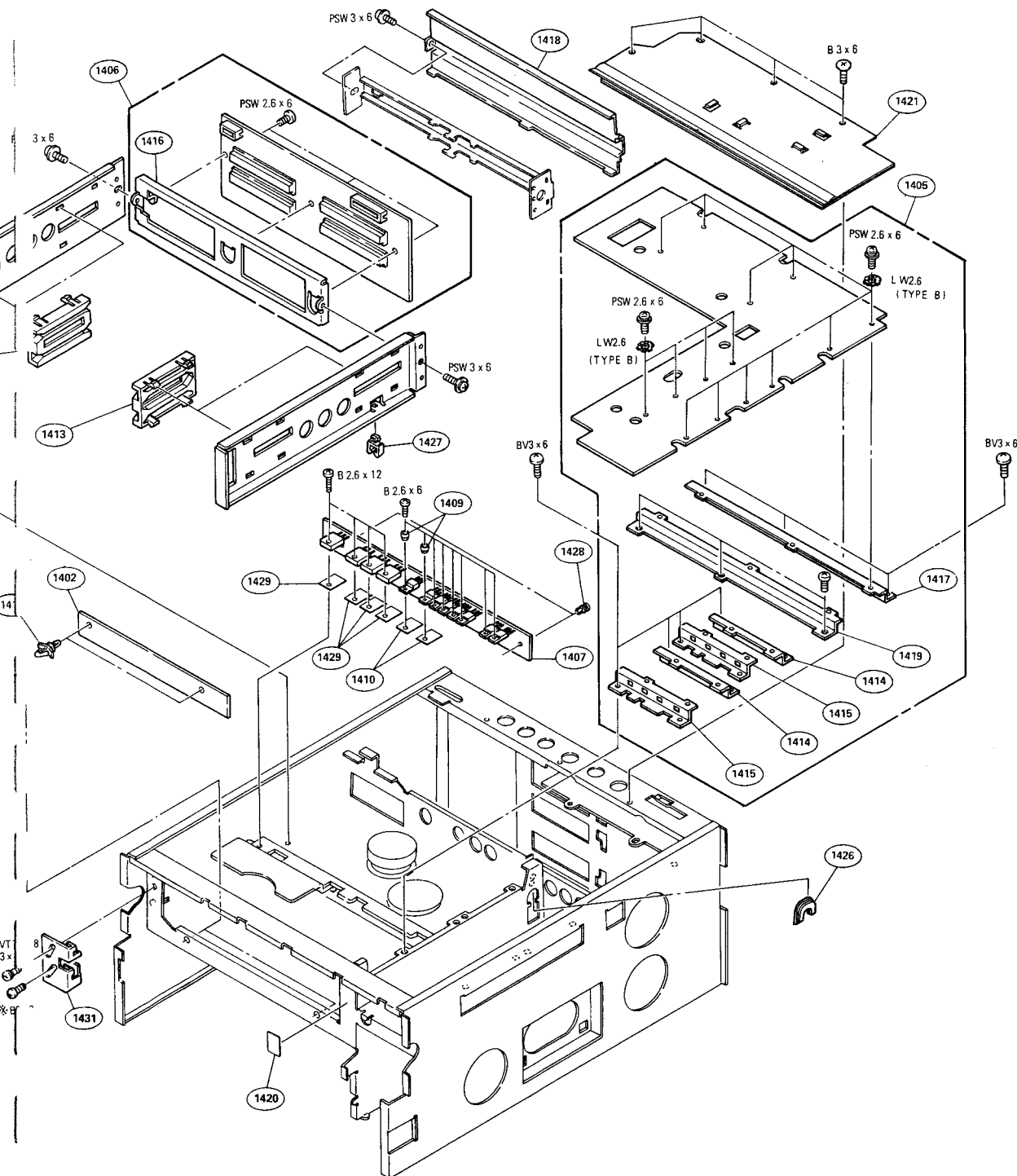
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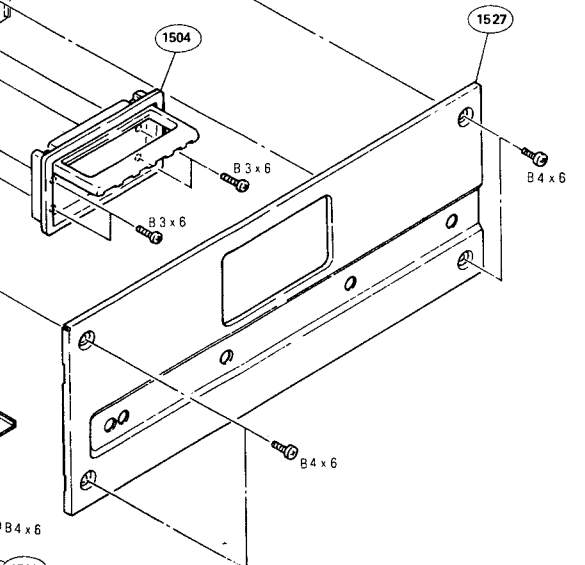
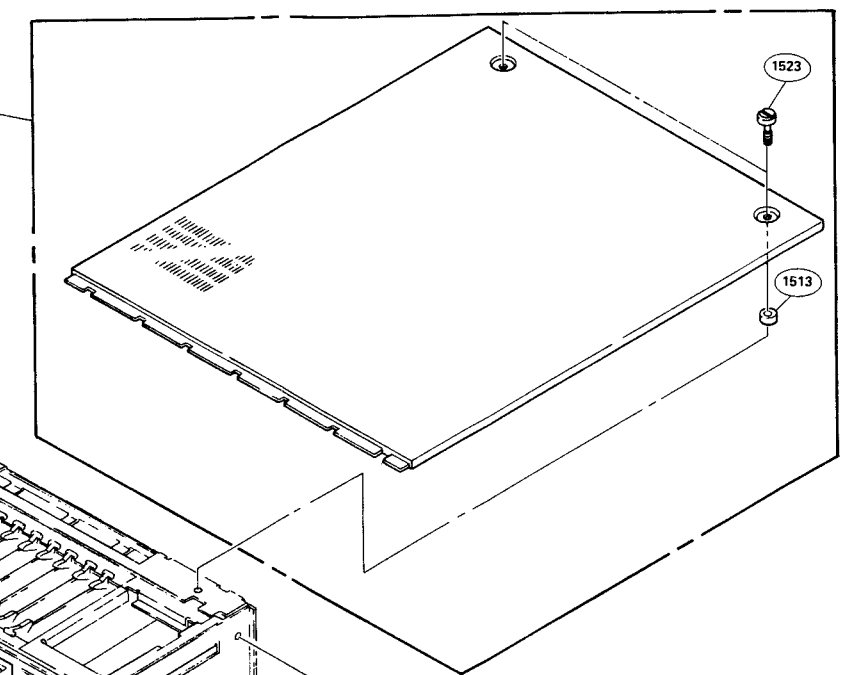
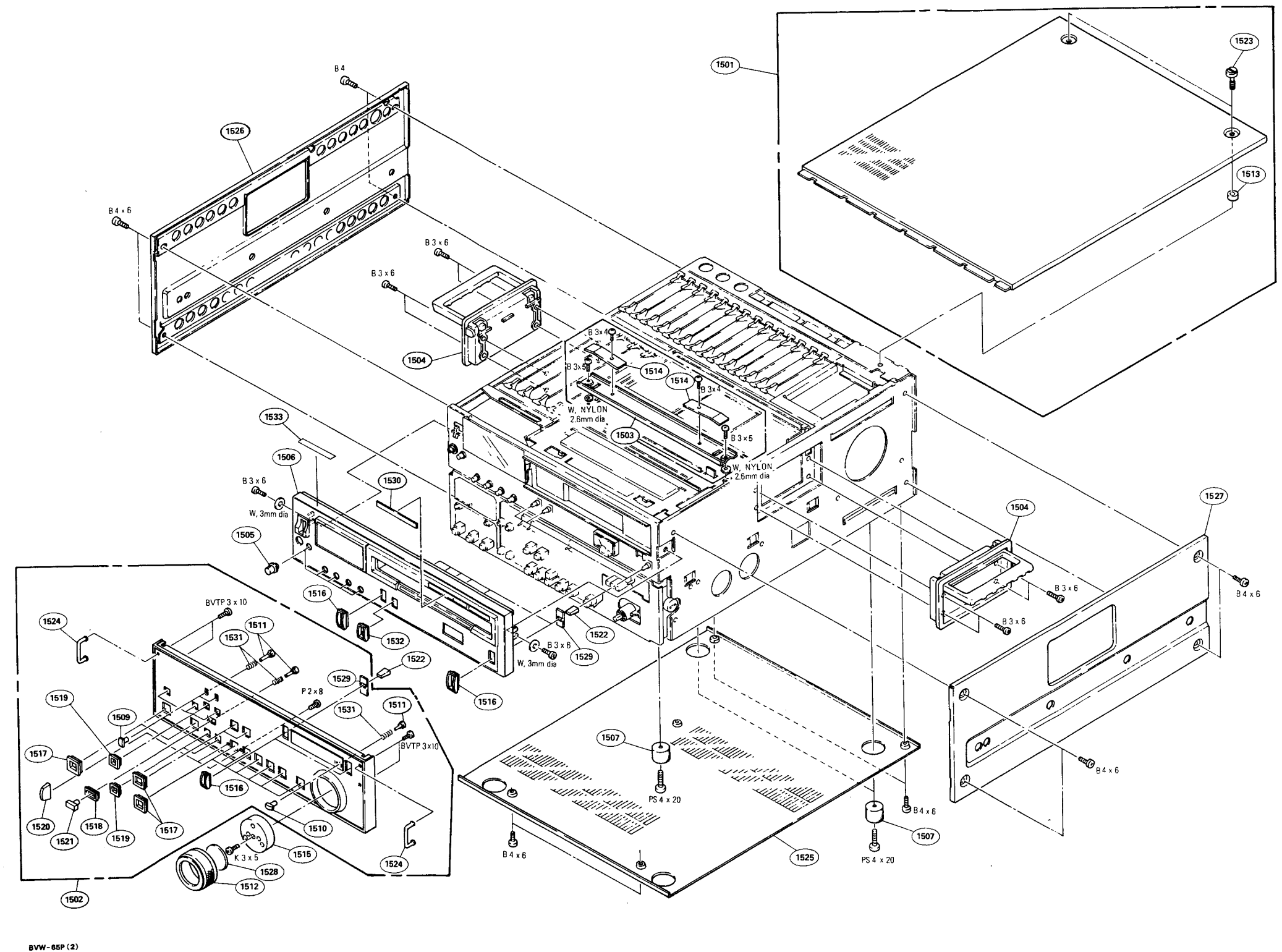
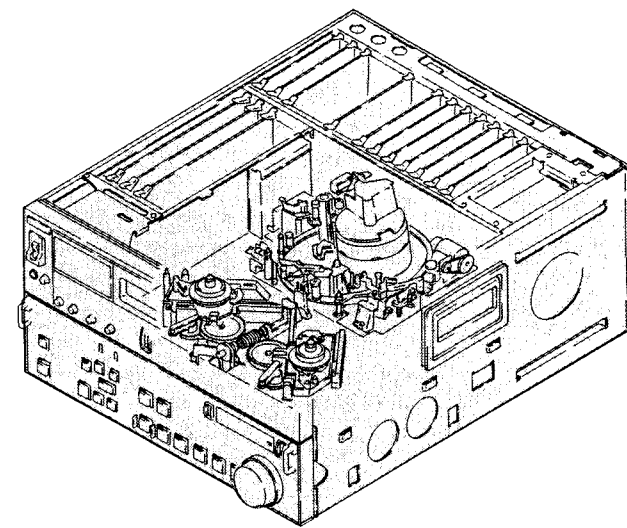
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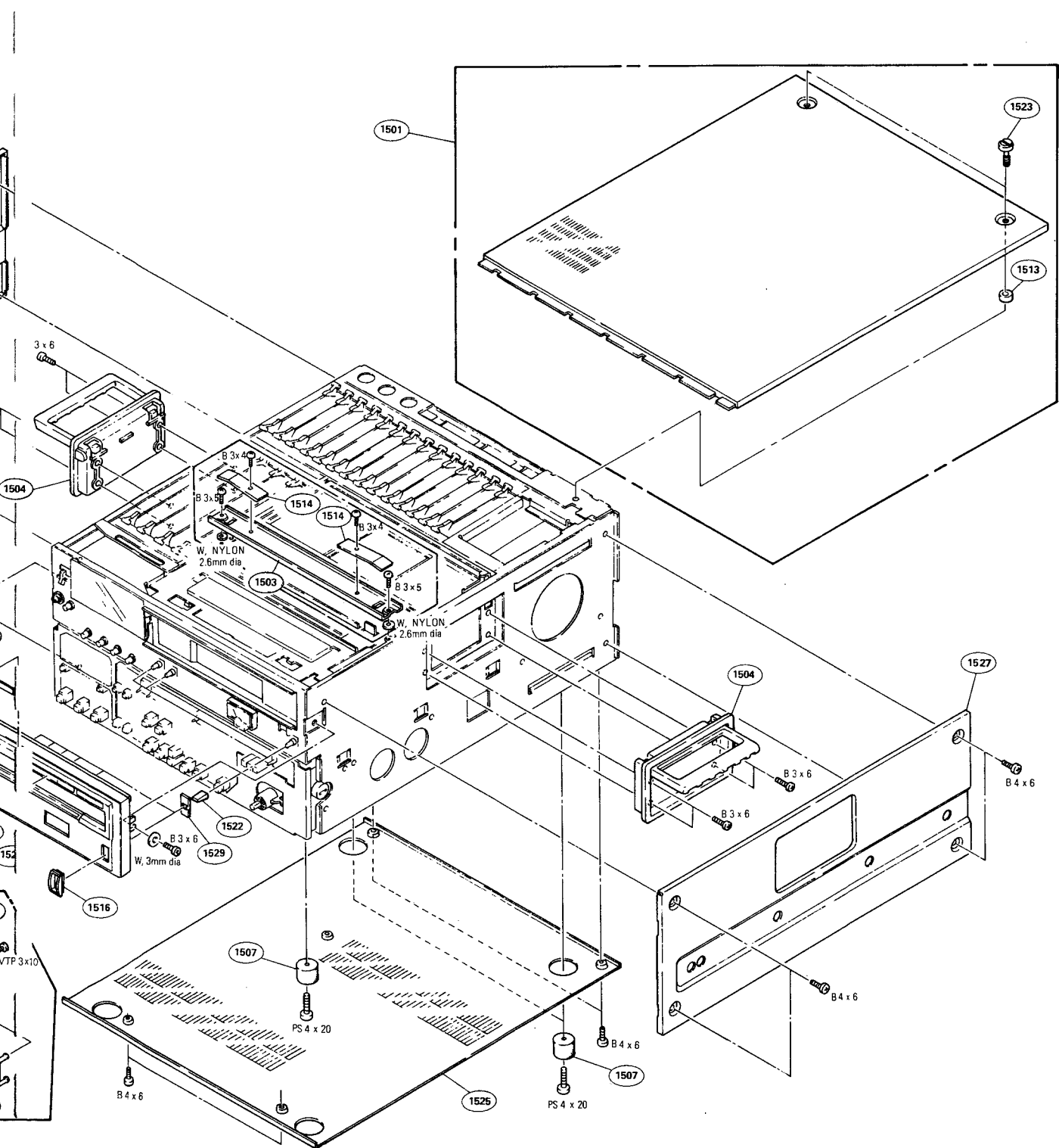
No.	Parts No.	SP	Description
1401	A-6715-354-A	o	MOUNTED CIRCUIT BOARD, RE-28
1402	A-6715-361-A	o	MOUNTED CIRCUIT BOARD, RE-36
1403	A-6717-487-A	o	MOUNTED CIRCUIT BOARD, SY-64AP
1404	A-6717-476-B	o	MOUNTED CIRCUIT BOARD, SY-61A
1405	A-6725-609-B	o	MOUNTED CIRCUIT BOARD, MB-191B
1406	A-6725-584-A	o	MOUNTED CIRCUIT BOARD, MB-192
1407	1-622-561-11	o	PRINTED CIRCUIT BOARD, DR-56
1408	2-251-622-11	s	LEVER, PC BOARD
1409	2-371-561-00	s	BUSHING (P), INSULATING
1410	3-660-978-00	s	SHEET, HEAT RESISTING
1411	3-703-353-01	o	SUPPORT, PC BOARD
1412	3-717-308-01	o	BRACKET (1), RE
1413	3-717-410-01	o	GUIDE (S), PCB
1414	3-717-631-01	o	BRACKET (S) (P), MB
1415	3-717-630-01	o	BRACKET (M) (P), MB
1416	3-717-468-01	o	JOINT, CONNECTOR
1417	3-717-480-04	o	BRACKET (LR), MB
1418	3-717-490-01	o	PLATE, SHIELD, MB-117
1419	3-717-491-05	o	BRACKET (LF), MB
1420	3-717-528-01	o	LABEL (S), PC BOARD
1421	3-717-543-01	o	GUARD, MB
1422	3-717-551-01	o	PLATE (SMALL), ORNAMENTAL, SLIDE
1423	3-717-552-01	o	PLATE (LARGE), ORNAMENTAL SLIDE
1424	3-721-879-01	o	SHEET METAL (64) (PB), ORNAMENTAL
1425	3-717-660-01	o	SHEET METAL (61) (PB), ORNAMENTAL
1426	4-302-401-00	s	BUSHING, DEGAUSSING COIL
1427	4-309-753-00	o	HOLDER, WIRE
1428	4-812-134-00	s	RIVET NYLON, 3.5
1429	4-911-232-01	s	SHEET, INSULATING
1430	X-3717-290-1	o	PLATE (L) ASS'Y, SHIELD, CARD
1431	3-727-012-02	o	STOPPER, SY

\* The screws (B3 x 8) are used for S/N 10161 and higher.

Ornamental Panel Block







No.	Parts No.	SF	Description
1501	A-6703-674-A	o	LID (P) ASS'Y, UPPER
1502	A-6704-304-A	o	PANEL ASS'Y, KEY
1503	A-6730-932-A	s	STAY ASS'Y, CASSETTE COMPARTMENT
1504	X-3642-018-0	s	HANDLE ASS'Y
1505	X-3717-237-1	s	KNOB ASS'Y, VOL
1506	X-3717-276-1	o	PANEL SUB ASS'Y, FRONT
1507	3-642-656-01	s	FOOT
1508	3-668-007-02	s	PUSH BUTTON, 5 x 9 (BLACK)
1509	3-668-007-11	s	PUSH BUTTON, 5 x 9 (WHITE)
1510	3-668-008-02	s	PUSH BUTTON (3 x 5)
1511	3-668-009-02	s	PIN, PUSH BUTTON
1512	3-668-012-00	s	RUBBER, DIAL KNOB
1513	3-688-102-01	o	SPACER, M4
1514	3-717-306-01	o	SPRING
1515	3-717-370-01	o	KNOB, DIAL
1516	3-717-374-01	o	FRAME (23 x 12), ORNAMENTAL, SW
1517	3-717-377-01	o	FRAME (SQUARE 17), ORNAMENTAL
1518	3-717-378-01	o	FRAME (20 x 13), ORNAMENTAL, BUTTON
1519	3-717-379-01	o	FRAME (SQUARE 14), ORNAMENTAL
1520	3-717-380-01	o	GUARD, REC
1521	3-717-381-01	s	PUSH BUTTON (15 x 8)
1522	3-717-382-01	s	KNOB, LEVER, SW
1523	3-717-392-01	o	SCREW, LID
1524	3-717-425-01	o	HAMDLE
1525	3-717-437-01	s	PLATE, BOTTOM
1526	3-717-482-01	o	CABINET (LEFT)
1527	3-717-483-01	o	CABINET (RIGHT)
1528	3-717-557-01	o	PLATE, KNOB
1529	3-717-613-01	o	PLATE ORNAMENTAL, LEVER SW
1530	3-717-661-21	s	LABEL, MODEL
1531	4-309-349-00	s	SPRING, COIL
1532	3-717-375-01	o	FRAME (18 x 12), ORNAMENTAL, SW
1533	3-701-690-01	s	LABEL (MADE IN JAPAN)

19-3. ELECTRICAL PARTS LIST

General Purpose Electrical Parts List

Parts that are not listed in the "reference numbers order list" are shown in following list.  
Reference numbers are omitted.

ABBREVIATIONS

Ref. No.	Description	Ref. No.	Description	Ref. No.	Description
C□□, CT□□	CAPACITOR	IC□□	IC	Q□□	TRANSISTOR
CF□□	CERAMIC FILTER	J□□	JACK	R□□, RV□□	RESISTOR
CN□□	CONNECTOR	L□□	INDUCTOR	RY□□	RELAY
D□□	DIODE	M□□	MOTOR	S□□, SW□□	SWITCH
DL□□	DELAY LINE	ME□□	METER	SB□□	SOLAR BATTERY
F□□	FUSE	MIC□□	MICROPHONE	T□□	TRANSFORMER
FB□□	FERRITE BEAD	PG□□	PG COIL	TH□□	THERMISTOR
FL□□	FILTER	PL□□	LAMP	X□□	CRYSTAL
H□□	HEAD	PM□□	SOLENOIDE		

All capacitors are in micro farads unless otherwise specified.

All inductors are in micro henries unless otherwise specified.

All resistors are in ohms.

- 1) marked parts are for serial No. 10061 through 10160.

2) marked parts are for serial No. 10161 and higher.

3) marked parts are for serial No. 10061 through 10191.

4) marked parts are for serial No. 10192 and higher.

5) marked parts are for serial No. 10161 through 10191.

6) marked parts are for serial No. 10061 through 10416.

7) marked parts are for serial No. 10417 and higher.

8) marked parts are for serial No. 10061 through 10543.

9) marked parts are for serial No. 10544 and higher.

10) marked parts are for serial No. 10061 through 10574.

11) marked parts are for serial No. 10575 and higher.

12) marked parts are for serial No. 10161 through 10574.

13) marked parts are for serial No. 10544 through 10574.
- 14) marked parts are for serial No. 10061 through 10669.

15) marked parts are for serial No. 10670 and higher.

16) marked parts are for serial No. 10192 through 10574.

17) marked parts are for serial No. 10061 through 10769.

18) marked parts are for serial No. 10770 and higher.

19) marked parts are for serial No. 10192 through 10669.

20) marked parts are for serial No. 10061 through 10889.

21) marked parts are for serial No. 10890 and higher.

22) marked parts are for serial No. 10061 through 11154.

23) marked parts are for serial No. 11155 and higher.

24) marked parts are for serial No. 10061 through 11259.

25) marked parts are for serial No. 11260 and higher.

Parts No. SP Description

CAPACITOR, CERAMIC, SBL

1-161-039-00	s	CAP, CERAMIC	0.001	10%	50V
1-161-041-00	s	CAP, CERAMIC	0.0015	10%	50V
1-161-043-00	s	CAP, CERAMIC	0.0022	10%	50V
1-161-045-00	s	CAP, CERAMIC	0.0033	10%	50V
1-161-047-00	s	CAP, CERAMIC	0.0047	10%	50V
1-161-049-00	s	CAP, CERAMIC	0.0068	10%	50V
1-161-051-00	s	CAP, CERAMIC	0.01	10%	50V
1-161-053-00	s	CAP, CERAMIC	0.015	10%	50V
1-161-055-00	s	CAP, CERAMIC	0.022	10%	50V
1-161-057-00	s	CAP, CERAMIC	0.033	10%	50V

1-161-021-11	s	CAP, CERAMIC	0.047	10%	25V
1-161-059-00	s	CAP, CERAMIC	0.047	10%	50V
1-161-061-00	s	CAP, CERAMIC	0.068	10%	50V
1-161-772-11	s	CAP, CERAMIC	0.1	10%	25V
1-161-063-00	s	CAP, CERAMIC	0.1	10%	50V

CAPACITOR, CHIP CERAMIC

1-163-083-00	s	CAP, CHIP CERAMIC	1pF	+0.25pF	50V
1-163-085-00	s	CAP, CHIP CERAMIC	2pF	+0.25pF	50V
1-163-087-00	s	CAP, CHIP CERAMIC	4pF	+0.25pF	50V
1-163-089-00	s	CAP, CHIP CERAMIC	6pF	+0.5pF	50V
1-163-091-00	s	CAP, CHIP CERAMIC	8pF	+0.5pF	50V
1-163-093-00	s	CAP, CHIP CERAMIC	10pF	5%	50V
1-163-097-00	s	CAP, CHIP CERAMIC	15pF	5%	50V
1-163-101-00	s	CAP, CHIP CERAMIC	22pF	5%	50V
1-163-105-00	s	CAP, CHIP CERAMIC	33pF	5%	50V
1-163-109-00	s	CAP, CHIP CERAMIC	47pF	5%	50V

1-163-113-00	s	CAP, CHIP CERAMIC	68pF	5%	50V
1-163-117-00	s	CAP, CHIP CERAMIC	100pF	5%	50V
1-163-121-00	s	CAP, CHIP CERAMIC	150pF	5%	50V
1-163-125-00	s	CAP, CHIP CERAMIC	220pF	5%	50V
1-163-129-00	s	CAP, CHIP CERAMIC	330pF	5%	50V

1-163-133-00	s	CAP, CHIP CERAMIC	470pF	5%	50V
1-163-137-00	s	CAP, CHIP CERAMIC	680pF	5%	50V
1-163-141-00	s	CAP, CHIP CERAMIC	1000pF	5%	50V
1-163-145-00	s	CAP, CHIP CERAMIC	1500pF	10%	50V
1-163-013-00	s	CAP, CHIP CERAMIC	2200pF	10%	50V

1-163-015-00	s	CAP, CHIP CERAMIC	3300pF	10%	50V
1-163-017-00	s	CAP, CHIP CERAMIC	4700pF	10%	50V
1-163-019-00	s	CAP, CHIP CERAMIC	6800pF	10%	50V
1-163-021-00	s	CAP, CHIP CERAMIC	0.01	10%	50V
1-163-023-00	s	CAP, CHIP CERAMIC	0.015	10%	50V

1-163-034-00	s	CAP, CHIP CERAMIC	0.033		50V
1-163-035-00	s	CAP, CHIP CERAMIC	0.047		50V
1-163-036-00	s	CAP, CHIP CERAMIC	0.068		50V
1-163-038-00	s	CAP, CHIP CERAMIC	0.1		50V

Parts No. SP Description

CAPACITOR, ELECTROLYTIC

1-124-902-00	s	CAP, ELECT	0.47	20%	50V
1-124-791-11	s	CAP, ELECT	1.0	20%	100V
1-124-925-11	s	CAP, ELECT	2.2	20%	100V
1-123-382-00	s	CAP, ELECT	3.3	20%	100V
1-124-927-00	s	CAP, ELECT	4.7	20%	100V

1-123-875-91	s	CAP, ELECT	10	20%	50V
1-124-908-11	s	CAP, ELECT	22	20%	50V
1-124-963-11	s	CAP, ELECT	33	20%	16V
1-124-482-11	s	CAP, ELECT	33	20%	35V
1-124-917-11	s	CAP, ELECT	33	20%	63V

1-124-446-11	s	CAP, ELECT	47	20%	10V
1-124-477-11	s	CAP, ELECT	47	20%	25V
1-124-910-11	s	CAP, ELECT	47	20%	50V
1-124-443-00	s	CAP, ELECT	100	20%	10V
1-126-101-11	s	CAP, ELECT	100	20%	16V

1-124-478-11	s	CAP, ELECT	100	20%	25V
1-124-122-11	s	CAP, ELECT	100	20%	50V
1-124-444-00	s	CAP, ELECT	220	20%	10V
1-124-120-11	s	CAP, ELECT	220	20%	25V
1-124-484-11	s	CAP, ELECT	220	20%	35V

1-124-911-11	s	CAP, ELECT	220	20%	50V
1-124-442-00	s	CAP, ELECT	330	20%	6.3V
1-124-604-00	s	CAP, ELECT	330	20%	10V
1-124-119-00	s	CAP, ELECT	330	20%	16V
1-124-479-11	s	CAP, ELECT	330	20%	25V

1-124-485-11	s	CAP, ELECT	330	20%	35V
1-124-912-11	s	CAP, ELECT	330	20%	50V
1-124-472-11	s	CAP, ELECT	470	20%	10V
1-124-475-11	s	CAP, ELECT	470	20%	16V
1-124-480-11	s	CAP, ELECT	470	20%	25V

1-126-104-11	s	CAP, ELECT	470	20%	35V
1-124-913-11	s	CAP, ELECT	470	20%	50V

CAPACITOR, MICA, SILVERED

1-107-019-00	s	CAP, MICA	1.0pF	+0.5pF	500V
1-107-039-00	s	CAP, MICA	1.2pF	+0.5pF	500V
1-107-040-00	s	CAP, MICA	1.5pF	+0.5pF	500V
1-107-041-00	s	CAP, MICA	1.8pF	+0.5pF	500V
1-107-042-00	s	CAP, MICA	2.2pF	+0.5pF	500V

1-107-043-00	s	CAP, MICA	2.7pF	+0.5pF	500V
1-107-044-00	s	CAP, MICA	3.3pF	+0.5pF	500V
1-107-045-00	s	CAP, MICA	3.9pF	+0.5pF	500V
1-107-046-00	s	CAP, MICA	4.7pF	+0.5pF	500V
1-107-026-00	s	CAP, MICA	5.1pF	+0.5pF	500V

1-107-047-00	s	CAP, MICA	5.6pF	+0.5pF	500V
1-107-048-00	s	CAP, MICA	6.8pF	+0.5pF	500V
1-107-049-00	s	CAP, MICA	8.2pF	+0.5pF	500V
1-107-202-00	s	CAP, MICA	10pF	5%	500V
1-107-203-00	s	CAP, MICA	11pF	5%	500V

1-107-204-00	s	CAP, MICA	12pF	5%	500V
1-107-205-00	s	CAP, MICA	13pF	5%	500V
1-107-206-00	s	CAP, MICA	15pF	5%	500V
1-107-207-00	s	CAP, MICA	16pF	5%	500V
1-107-208-00	s	CAP, MICA	18pF	5%	500V

1-107-209-00	s	CAP, MICA	20pF	5%	500V
1-107-210-00	s	CAP, MICA	22pF	5%	500V
1-107-211-00	s	CAP, MICA	24pF	5%	500V
1-107-157-00	s	CAP, MICA	27pF	5%	500V
1-107-158-00	s	CAP, MICA	30pF	5%	500V

Parts No.	SP	Description
1-107-159-00	s	CAP, MICA 33pF 5% 500V
1-107-074-00	s	CAP, MICA 36pF 5% 50V
1-107-075-00	s	CAP, MICA 39pF 5% 50V
1-107-076-00	s	CAP, MICA 43pF 5% 50V
1-107-077-00	s	CAP, MICA 47pF 5% 50V
1-107-164-00	s	CAP, MICA 51pF 5% 500V
1-107-165-00	s	CAP, MICA 56pF 5% 500V
1-107-166-00	s	CAP, MICA 62pF 5% 500V
1-107-036-00	s	CAP, MICA 68pF 5% 500V
1-107-167-00	s	CAP, MICA 75pF 5% 500V
1-107-083-00	s	CAP, MICA 82pF 5% 50V
1-107-084-00	s	CAP, MICA 91pF 5% 50V
1-107-085-00	s	CAP, MICA 100pF 5% 50V
1-107-086-00	s	CAP, MICA 110pF 5% 50V
1-107-087-00	s	CAP, MICA 120pF 5% 50V
1-109-538-00	s	CAP, MICA 130pF 5% 100V
1-109-539-00	s	CAP, MICA 150pF 5% 100V
1-107-090-00	s	CAP, MICA 160pF 5% 50V
1-109-540-00	s	CAP, MICA 180pF 5% 100V
1-109-541-00	s	CAP, MICA 200pF 5% 100V
1-109-542-00	s	CAP, MICA 220pF 5% 100V
1-109-545-00	s	CAP, MICA 270pF 5% 100V
1-109-547-00	s	CAP, MICA 330pF 5% 100V
1-109-549-00	s	CAP, MICA 390pF 5% 100V
1-109-633-00	s	CAP, MICA 470pF 2% 500V
1-109-555-00	s	CAP, MICA 560pF 5% 100V
1-109-635-00	s	CAP, MICA 470pF 2% 500V

#### CAPACITOR, MYLAR

1-130-467-00	s	CAP, MYLAR 470pF 5% 50V
1-130-468-00	s	CAP, MYLAR 560pF 5% 50V
1-130-469-00	s	CAP, MYLAR 680pF 5% 50V
1-130-470-00	s	CAP, MYLAR 820pF 5% 50V
1-130-471-00	s	CAP, MYLAR 1000pF 5% 50V
1-130-472-00	s	CAP, MYLAR 1200pF 5% 50V
1-130-473-00	s	CAP, MYLAR 1500pF 5% 50V
1-130-474-00	s	CAP, MYLAR 1800pF 5% 50V
1-130-475-00	s	CAP, MYLAR 2200pF 5% 50V
1-130-476-00	s	CAP, MYLAR 2700pF 5% 50V
1-130-477-00	s	CAP, MYLAR 3300pF 5% 50V
1-130-478-00	s	CAP, MYLAR 3900pF 5% 50V
1-130-479-00	s	CAP, MYLAR 4700pF 5% 50V
1-130-480-00	s	CAP, MYLAR 5600pF 5% 50V
1-130-481-00	s	CAP, MYLAR 6800pF 5% 50V
1-130-482-00	s	CAP, MYLAR 8200pF 5% 50V
1-130-483-00	s	CAP, MYLAR 0.01 5% 50V
1-130-484-00	s	CAP, MYLAR 0.012 5% 50V
1-130-485-00	s	CAP, MYLAR 0.015 5% 50V
1-130-486-00	s	CAP, MYLAR 0.018 5% 50V
1-130-487-00	s	CAP, MYLAR 0.022 5% 50V
1-130-488-00	s	CAP, MYLAR 0.027 5% 50V
1-130-489-00	s	CAP, MYLAR 0.033 5% 50V
1-130-490-11	s	CAP, MYLAR 0.039 5% 50V
1-130-491-00	s	CAP, MYLAR 0.047 5% 50V
1-130-492-11	s	CAP, MYLAR 0.056 5% 50V
1-130-493-00	s	CAP, MYLAR 0.068 5% 50V
1-130-494-11	s	CAP, MYLAR 0.082 5% 50V
1-130-495-00	s	CAP, MYLAR 0.1 5% 50V
1-130-496-00	s	CAP, MYLAR 0.12 5% 50V
1-130-497-00	s	CAP, MYLAR 0.15 5% 50V
1-130-498-00	s	CAP, MYLAR 0.18 5% 50V
1-130-499-00	s	CAP, MYLAR 0.22 5% 50V
1-136-502-11	s	CAP, MYLAR 0.33 5% 50V

Parts No. SP Description

#### CAPACITOR, TANTALUM

1-131-396-11	s	CAP, TANTALUM 0.01 20% 35V
1-131-397-11	s	CAP, TANTALUM 0.015 20% 35V
1-131-398-11	s	CAP, TANTALUM 0.022 20% 35V
1-131-399-11	s	CAP, TANTALUM 0.033 20% 35V
1-131-400-11	s	CAP, TANTALUM 0.047 20% 35V
1-131-401-21	s	CAP, TANTALUM 0.068 10% 35V
1-131-341-21	s	CAP, TANTALUM 0.1 10% 35V
1-131-342-21	s	CAP, TANTALUM 0.15 10% 35V
1-131-343-21	s	CAP, TANTALUM 0.22 10% 35V
1-131-344-21	s	CAP, TANTALUM 0.33 10% 35V
1-131-412-11	s	CAP, TANTALUM 0.47 20% 20V
1-131-345-21	s	CAP, TANTALUM 0.47 10% 35V
1-131-410-11	s	CAP, TANTALUM 0.68 20% 25V
1-131-346-21	s	CAP, TANTALUM 0.68 10% 35V
1-131-413-11	s	CAP, TANTALUM 1.0 20% 20V
1-131-347-21	s	CAP, TANTALUM 1.0 10% 35V
1-131-416-11	s	CAP, TANTALUM 1.5 20% 16V
1-131-348-21	s	CAP, TANTALUM 1.5 10% 35V
1-131-419-11	s	CAP, TANTALUM 2.2 20% 10V
1-131-361-21	s	CAP, TANTALUM 2.2 10% 20V
1-131-349-21	s	CAP, TANTALUM 2.2 10% 35V
1-131-422-11	s	CAP, TANTALUM 3.3 20% 6.3V
1-131-368-21	s	CAP, TANTALUM 3.3 10% 16V
1-131-356-21	s	CAP, TANTALUM 3.3 10% 25V
1-131-350-21	s	CAP, TANTALUM 3.3 10% 35V
1-131-425-11	s	CAP, TANTALUM 4.7 20% 3.15V
1-131-375-21	s	CAP, TANTALUM 4.7 10% 10V
1-131-363-21	s	CAP, TANTALUM 4.7 10% 20V
1-131-351-21	s	CAP, TANTALUM 4.7 10% 35V
1-131-382-21	s	CAP, TANTALUM 6.8 10% 6.3V
1-131-370-21	s	CAP, TANTALUM 6.8 10% 16V
1-131-358-21	s	CAP, TANTALUM 6.8 10% 25V
1-131-352-21	s	CAP, TANTALUM 6.8 10% 35V
1-131-389-21	s	CAP, TANTALUM 10 10% 3.15V
1-131-377-21	s	CAP, TANTALUM 10 10% 10V
1-131-365-21	s	CAP, TANTALUM 10 10% 20V
1-131-353-21	s	CAP, TANTALUM 10 10% 35V
1-131-384-21	s	CAP, TANTALUM 15 10% 6.3V
1-131-372-21	s	CAP, TANTALUM 15 10% 16V
1-131-360-21	s	CAP, TANTALUM 15 10% 25V
1-131-391-21	s	CAP, TANTALUM 22 10% 3.15V
1-131-379-21	s	CAP, TANTALUM 22 10% 10V
1-131-367-21	s	CAP, TANTALUM 22 10% 20V
1-131-386-21	s	CAP, TANTALUM 33 10% 6.3V
1-131-374-21	s	CAP, TANTALUM 33 10% 16V
1-131-393-21	s	CAP, TANTALUM 47 10% 3.15V
1-131-381-21	s	CAP, TANTALUM 47 10% 10V
1-131-388-21	s	CAP, TANTALUM 68 10% 6.3V
1-131-395-21	s	CAP, TANTALUM 100 10% 3.15V

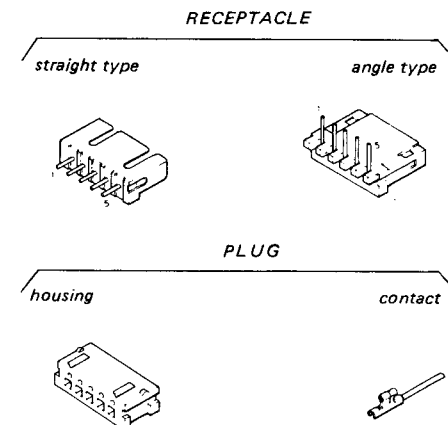
Parts No. SP Description

#### CONNECTOR

1-564-001-11	o	RECEPTACLE 2P MALE (STRAIGHT TYPE)
1-564-012-11	o	RECEPTACLE 2P MALE (ANGLE TYPE)
1-562-147-11	o	HOUSING 2P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-002-11	o	RECEPTACLE 3P MALE (STRAIGHT TYPE)
1-564-013-11	o	RECEPTACLE 3P MALE (ANGLE TYPE)
1-562-148-11	o	HOUSING 3P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-003-11	o	RECEPTACLE 4P MALE (STRAIGHT TYPE)
1-564-014-11	o	RECEPTACLE 4P MALE (ANGLE TYPE)
1-562-149-11	o	HOUSING 4P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-004-11	o	RECEPTACLE 5P MALE (STRAIGHT TYPE)
1-564-015-11	o	RECEPTACLE 5P MALE (ANGLE TYPE)
1-562-150-11	o	HOUSING 5P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-005-11	o	RECEPTACLE 6P MALE (STRAIGHT TYPE)
1-564-016-11	o	RECEPTACLE 6P MALE (ANGLE TYPE)
1-562-151-11	o	HOUSING 6P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-006-11	o	RECEPTACLE 7P MALE (STRAIGHT TYPE)
1-564-017-11	o	RECEPTACLE 7P MALE (ANGLE TYPE)
1-562-152-11	o	HOUSING 7P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-007-11	o	RECEPTACLE 8P MALE (STRAIGHT TYPE)
1-564-018-11	o	RECEPTACLE 8P MALE (ANGLE TYPE)
1-562-153-11	o	HOUSING 8P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-008-41	o	RECEPTACLE 9P MALE (STRAIGHT TYPE)
1-564-019-11	o	RECEPTACLE 9P MALE (ANGLE TYPE)
1-562-154-11	o	HOUSING 9P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-009-11	o	RECEPTACLE 10P MALE (STRAIGHT TYPE)
1-564-020-11	o	RECEPTACLE 10P MALE (ANGLE TYPE)
1-562-155-11	o	HOUSING 10P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-010-21	o	RECEPTACLE 11P MALE (STRAIGHT TYPE)
1-564-021-11	o	RECEPTACLE 11P MALE (ANGLE TYPE)
1-562-156-11	o	HOUSING 11P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-011-11	o	RECEPTACLE 12P MALE (STRAIGHT TYPE)
1-564-022-11	o	RECEPTACLE 12P MALE (ANGLE TYPE)
1-562-157-11	o	HOUSING 12P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32

Parts No. SP Description

1-564-683-11	o	RECEPTACLE 13P MALE (STRAIGHT TYPE)
1-564-743-11	o	RECEPTACLE 13P MALE (ANGLE TYPE)
1-562-627-11	o	HOUSING 13P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-069-11	o	RECEPTACLE 14P MALE (STRAIGHT TYPE)
1-564-630-11	o	RECEPTACLE 14P MALE (ANGLE TYPE)
1-562-185-11	o	HOUSING 14P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-855-11	o	RECEPTACLE 15P MALE (STRAIGHT TYPE)
1-564-877-11	o	RECEPTACLE 15P MALE (ANGLE TYPE)
1-562-958-11	o	HOUSING 15P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32



Parts No. SP Description

INDUCTOR, MICRO

1-408-397-00	s	INDUCTOR, MICRO	1.0	5%
1-408-399-00	s	INDUCTOR, MICRO	1.5	5%
1-408-400-00	s	INDUCTOR, MICRO	1.8	5%
1-408-401-00	s	INDUCTOR, MICRO	2.2	5%
1-408-403-00	s	INDUCTOR, MICRO	3.3	5%
1-408-404-00	s	INDUCTOR, MICRO	3.9	5%
1-408-405-00	s	INDUCTOR, MICRO	4.7	5%
1-408-406-00	s	INDUCTOR, MICRO	5.6	5%
1-408-407-00	s	INDUCTOR, MICRO	6.8	5%
1-408-408-00	s	INDUCTOR, MICRO	8.2	5%
1-408-409-00	s	INDUCTOR, MICRO	10	5%
1-408-410-00	s	INDUCTOR, MICRO	12	5%
1-408-411-00	s	INDUCTOR, MICRO	15	5%
1-408-412-00	s	INDUCTOR, MICRO	18	5%
1-408-413-00	s	INDUCTOR, MICRO	22	5%
1-408-414-00	s	INDUCTOR, MICRO	27	5%
1-408-415-00	s	INDUCTOR, MICRO	33	5%
1-408-416-00	s	INDUCTOR, MICRO	39	5%
1-408-417-00	s	INDUCTOR, MICRO	47	5%
1-408-418-00	s	INDUCTOR, MICRO	56	5%
1-408-419-00	s	INDUCTOR, MICRO	68	5%
1-408-420-00	s	INDUCTOR, MICRO	82	5%
1-408-421-00	s	INDUCTOR, MICRO	100	5%
1-408-422-00	s	INDUCTOR, MICRO	120	5%
1-408-423-00	s	INDUCTOR, MICRO	150	5%
1-408-424-00	s	INDUCTOR, MICRO	180	5%
1-408-425-00	s	INDUCTOR, MICRO	220	5%
1-408-426-00	s	INDUCTOR, MICRO	270	5%
1-408-427-00	s	INDUCTOR, MICRO	330	5%
1-408-428-00	s	INDUCTOR, MICRO	390	5%
1-408-429-00	s	INDUCTOR, MICRO	470	5%
1-410-116-11	s	INDUCTOR, MICRO	560	5%
1-410-492-11	s	INDUCTOR, MICRO	680	5%
1-410-493-11	s	INDUCTOR, MICRO	820	5%
1-410-494-11	s	INDUCTOR, MICRO	1000	5%

Parts No. SP Description

RESISTOR, CARBON

1-249-381-11	s	RES, CARBON	1.0	5%	1/6W
1-249-382-11	s	RES, CARBON	1.2	5%	1/6W
1-249-383-11	s	RES, CARBON	1.5	5%	1/6W
1-249-384-11	s	RES, CARBON	1.8	5%	1/6W
1-249-385-11	s	RES, CARBON	2.2	5%	1/6W
1-249-386-11	s	RES, CARBON	2.7	5%	1/6W
1-249-387-11	s	RES, CARBON	3.3	5%	1/6W
1-249-388-11	s	RES, CARBON	3.9	5%	1/6W
1-249-389-11	s	RES, CARBON	4.7	5%	1/6W
1-249-390-11	s	RES, CARBON	5.6	5%	1/6W
1-249-391-11	s	RES, CARBON	6.8	5%	1/6W
1-249-392-11	s	RES, CARBON	8.2	5%	1/6W
1-249-393-11	s	RES, CARBON	10	5%	1/6W
1-249-394-11	s	RES, CARBON	12	5%	1/6W
1-249-395-11	s	RES, CARBON	15	5%	1/6W
1-249-396-11	s	RES, CARBON	18	5%	1/6W
1-249-397-11	s	RES, CARBON	22	5%	1/6W
1-249-398-11	s	RES, CARBON	27	5%	1/6W
1-249-399-11	s	RES, CARBON	33	5%	1/6W
1-249-400-11	s	RES, CARBON	39	5%	1/6W
1-249-401-11	s	RES, CARBON	47	5%	1/6W
1-249-402-11	s	RES, CARBON	56	5%	1/6W
1-249-403-11	s	RES, CARBON	68	5%	1/6W
1-249-404-11	s	RES, CARBON	82	5%	1/6W
1-249-405-11	s	RES, CARBON	100	5%	1/6W
1-249-406-11	s	RES, CARBON	120	5%	1/6W
1-249-407-11	s	RES, CARBON	150	5%	1/6W
1-249-408-11	s	RES, CARBON	180	5%	1/6W
1-249-409-11	s	RES, CARBON	220	5%	1/6W
1-249-410-11	s	RES, CARBON	270	5%	1/6W
1-249-411-11	s	RES, CARBON	330	5%	1/6W
1-249-412-11	s	RES, CARBON	390	5%	1/6W
1-249-413-11	s	RES, CARBON	470	5%	1/6W
1-249-414-11	s	RES, CARBON	560	5%	1/6W
1-249-415-11	s	RES, CARBON	680	5%	1/6W
1-249-416-11	s	RES, CARBON	820	5%	1/6W
1-249-417-11	s	RES, CARBON	1.0k	5%	1/6W
1-249-418-11	s	RES, CARBON	1.2k	5%	1/6W
1-249-419-11	s	RES, CARBON	1.5k	5%	1/6W
1-249-420-11	s	RES, CARBON	1.8k	5%	1/6W
1-249-421-11	s	RES, CARBON	2.2k	5%	1/6W
1-249-422-11	s	RES, CARBON	2.7k	5%	1/6W
1-249-423-11	s	RES, CARBON	3.3k	5%	1/6W
1-249-424-11	s	RES, CARBON	3.9k	5%	1/6W
1-249-425-11	s	RES, CARBON	4.7k	5%	1/6W
1-249-426-11	s	RES, CARBON	5.6k	5%	1/6W
1-249-427-11	s	RES, CARBON	6.8k	5%	1/6W
1-249-428-11	s	RES, CARBON	8.2k	5%	1/6W
1-249-429-11	s	RES, CARBON	10k	5%	1/6W
1-249-430-11	s	RES, CARBON	12k	5%	1/6W
1-249-431-11	s	RES, CARBON	15k	5%	1/6W
1-249-432-11	s	RES, CARBON	18k	5%	1/6W
1-249-433-11	s	RES, CARBON	22k	5%	1/6W
1-249-434-11	s	RES, CARBON	27k	5%	1/6W
1-249-435-11	s	RES, CARBON	33k	5%	1/6W
1-249-436-11	s	RES, CARBON	39k	5%	1/6W
1-249-437-11	s	RES, CARBON	47k	5%	1/6W
1-249-438-11	s	RES, CARBON	56k	5%	1/6W
1-249-439-11	s	RES, CARBON	68k	5%	1/6W
1-249-440-11	s	RES, CARBON	82k	5%	1/6W
1-249-441-11	s	RES, CARBON	100k	5%	1/6W

Parts No. SP Description

RESISTOR, CHIP

1-216-295-00	s	RES, CHIP	0	5%	1/10W
1-216-298-00	s	RES, CHIP	2.2	5%	1/10W
1-216-302-00	s	RES, CHIP	2.7	5%	1/10W
1-216-304-00	s	RES, CHIP	3.3	5%	1/10W
1-216-306-00	s	RES, CHIP	3.9	5%	1/10W
1-216-308-00	s	RES, CHIP	4.7	5%	1/10W
1-216-309-00	s	RES, CHIP	5.6	5%	1/10W
1-216-311-00	s	RES, CHIP	6.8	5%	1/10W
1-216-313-00	s	RES, CHIP	8.2	5%	1/10W
1-216-001-00	s	RES, CHIP	10	5%	1/10W
1-216-003-00	s	RES, CHIP	12	5%	1/10W
1-216-005-00	s	RES, CHIP	15	5%	1/10W
1-216-007-00	s	RES, CHIP	18	5%	1/10W
1-216-009-00	s	RES, CHIP	22	5%	1/10W
1-216-011-00	s	RES, CHIP	27	5%	1/10W
1-216-013-00	s	RES, CHIP	33	5%	1/10W
1-216-015-00	s	RES, CHIP	39	5%	1/10W
1-216-017-00	s	RES, CHIP	47	5%	1/10W
1-216-019-00	s	RES, CHIP	56	5%	1/10W
1-216-021-00	s	RES, CHIP	68	5%	1/10W
1-216-023-00	s	RES, CHIP	82	5%	1/10W
1-216-025-00	s	RES, CHIP	100	5%	1/10W
1-216-027-00	s	RES, CHIP	120	5%	1/10W
1-216-029-00	s	RES, CHIP	150	5%	1/10W
1-216-031-00	s	RES, CHIP	180	5%	1/10W
1-216-033-00	s	RES, CHIP	220	5%	1/10W
1-216-035-00	s	RES, CHIP	270	5%	1/10W
1-216-037-00	s	RES, CHIP	330	5%	1/10W
1-216-039-00	s	RES, CHIP	390	5%	1/10W
1-216-041-00	s	RES, CHIP	470	5%	1/10W
1-216-043-00	s	RES, CHIP	560	5%	1/10W
1-216-045-00	s	RES, CHIP	680	5%	1/10W
1-216-047-00	s	RES, CHIP	820	5%	1/10W
1-216-049-00	s	RES, CHIP	1k	5%	1/10W
1-216-051-00	s	RES, CHIP	1.2k	5%	1/10W
1-216-053-00	s	RES, CHIP	1.5k	5%	1/10W
1-216-055-00	s	RES, CHIP	1.8k	5%	1/10W
1-216-057-00	s	RES, CHIP	2.2k	5%	1/10W
1-216-059-00	s	RES, CHIP	2.7k	5%	1/10W
1-216-061-00	s	RES, CHIP	3.3k	5%	1/10W
1-216-063-00	s	RES, CHIP	3.9k	5%	1/10W
1-216-065-00	s	RES, CHIP	4.7k	5%	1/10W
1-216-067-00	s	RES, CHIP	5.6k	5%	1/10W
1-216-069-00	s	RES, CHIP	6.8k	5%	1/10W
1-216-071-00	s	RES, CHIP	8.2k	5%	1/10W
1-216-073-00	s	RES, CHIP	10k	5%	1/10W
1-216-075-00	s	RES, CHIP	12k	5%	1/10W
1-216-077-00	s	RES, CHIP	15k	5%	1/10W
1-216-079-00	s	RES, CHIP	18k	5%	1/10W
1-216-081-00	s	RES, CHIP	22k	5%	1/10W
1-216-083-00	s	RES, CHIP	27k	5%	1/10W
1-216-085-00	s	RES, CHIP	33k	5%	1/10W
1-216-087-00	s	RES, CHIP	39k	5%	1/10W
1-216-089-00	s	RES, CHIP	47k	5%	1/10W
1-216-091-00	s	RES, CHIP	56k	5%	1/10W

Parts No. SP Description

1-216-093-00	s	RES, CHIP	68k	5%	1/10W
1-216-095-00	s	RES, CHIP	82k	5%	1/10W
1-216-097-00	s	RES, CHIP	100k	5%	1/10W
1-216-099-00	s	RES, CHIP	120k	5%	1/10W
1-216-101-00	s	RES, CHIP	150k	5%	1/10W
1-216-103-00	s	RES, CHIP	180k	5%	1/10W
1-216-105-00	s	RES, CHIP	220k	5%	1/10W
1-216-107-00	s	RES, CHIP	270k	5%	1/10W
1-216-109-00	s	RES, CHIP	330k	5%	1/10W
1-216-111-00	s	RES, CHIP	390k	5%	1/10W
1-216-113-00	s	RES, CHIP	470k	5%	1/10W
1-216-115-00	s	RES, CHIP	560k	5%	1/10W
1-216-117-00	s	RES, CHIP	680k	5%	1/10W
1-216-119-00	s	RES, CHIP	820k	5%	1/10W
1-216-121-00	s	RES, CHIP	1.0M	5%	1/10W
1-216-123-00	s	RES, CHIP	1.2M	5%	1/10W
1-216-125-00	s	RES, CHIP	1.5M	5%	1/10W
1-216-127-00	s	RES, CHIP	1.8M	5%	1/10W
1-216-129-00	s	RES, CHIP	2.2M	5%	1/10W
1-216-131-00	s	RES, CHIP	2.7M	5%	1/10W
1-216-133-00	s	RES, CHIP	3.3M	5%	1/10W

Parts No. SP Description

RESISTOR, METAL

1-215-373-31	s	RES, METAL	10	1% 1/6W
1-215-374-00	s	RES, METAL	11	1% 1/6W
1-215-375-00	s	RES, METAL	12	1% 1/6W
1-215-376-00	s	RES, METAL	13	1% 1/6W
1-215-377-00	s	RES, METAL	15	1% 1/6W
1-215-378-00	s	RES, METAL	16	1% 1/6W
1-215-379-00	s	RES, METAL	18	1% 1/6W
1-215-380-00	s	RES, METAL	20	1% 1/6W
1-215-381-00	s	RES, METAL	22	1% 1/6W
1-215-382-00	s	RES, METAL	24	1% 1/6W
1-215-383-00	s	RES, METAL	27	1% 1/6W
1-215-384-00	s	RES, METAL	30	1% 1/6W
1-215-385-00	s	RES, METAL	33	1% 1/6W
1-215-386-00	s	RES, METAL	36	1% 1/6W
1-215-387-00	s	RES, METAL	39	1% 1/6W
1-215-388-00	s	RES, METAL	43	1% 1/6W
1-215-389-00	s	RES, METAL	47	1% 1/6W
1-215-390-00	s	RES, METAL	51	1% 1/6W
1-215-391-00	s	RES, METAL	56	1% 1/6W
1-215-392-00	s	RES, METAL	62	1% 1/6W
1-215-393-00	s	RES, METAL	68	1% 1/6W
1-215-394-00	s	RES, METAL	75	1% 1/6W
1-215-395-00	s	RES, METAL	82	1% 1/6W
1-215-396-00	s	RES, METAL	91	1% 1/6W
1-215-397-00	s	RES, METAL	100	1% 1/6W
1-215-398-00	s	RES, METAL	110	1% 1/6W
1-215-399-00	s	RES, METAL	120	1% 1/6W
1-215-400-00	s	RES, METAL	130	1% 1/6W
1-215-401-00	s	RES, METAL	150	1% 1/6W
1-215-402-00	s	RES, METAL	160	1% 1/6W
1-215-403-00	s	RES, METAL	180	1% 1/6W
1-215-404-00	s	RES, METAL	200	1% 1/6W
1-215-405-00	s	RES, METAL	220	1% 1/6W
1-215-406-00	s	RES, METAL	240	1% 1/6W
1-215-407-00	s	RES, METAL	270	1% 1/6W
1-215-408-00	s	RES, METAL	300	1% 1/6W
1-215-409-00	s	RES, METAL	330	1% 1/6W
1-215-410-00	s	RES, METAL	360	1% 1/6W
1-215-411-00	s	RES, METAL	390	1% 1/6W
1-215-412-00	s	RES, METAL	430	1% 1/6W
1-215-413-00	s	RES, METAL	470	1% 1/6W
1-215-414-00	s	RES, METAL	510	1% 1/6W
1-215-415-00	s	RES, METAL	560	1% 1/6W
1-215-416-00	s	RES, METAL	620	1% 1/6W
1-215-417-00	s	RES, METAL	680	1% 1/6W
1-215-418-00	s	RES, METAL	750	1% 1/6W
1-215-419-00	s	RES, METAL	820	1% 1/6W
1-215-420-00	s	RES, METAL	910	1% 1/6W
1-215-421-00	s	RES, METAL	1.0k	1% 1/6W
1-215-422-00	s	RES, METAL	1.1k	1% 1/6W
1-215-423-00	s	RES, METAL	1.2k	1% 1/6W
1-215-424-00	s	RES, METAL	1.3k	1% 1/6W
1-215-425-00	s	RES, METAL	1.5k	1% 1/6W
1-215-426-00	s	RES, METAL	1.6k	1% 1/6W
1-215-427-00	s	RES, METAL	1.8k	1% 1/6W
1-215-428-00	s	RES, METAL	2.0k	1% 1/6W
1-215-429-00	s	RES, METAL	2.2k	1% 1/6W
1-215-430-00	s	RES, METAL	2.4k	1% 1/6W
1-215-431-00	s	RES, METAL	2.7k	1% 1/6W
1-215-432-00	s	RES, METAL	3.0k	1% 1/6W

Parts No. SP Description

1-215-433-00	s	RES, METAL	3.3k	1% 1/6W
1-215-434-00	s	RES, METAL	3.6k	1% 1/6W
1-215-435-00	s	RES, METAL	3.9k	1% 1/6W
1-215-436-00	s	RES, METAL	4.3k	1% 1/6W
1-215-437-00	s	RES, METAL	4.7k	1% 1/6W
1-215-438-00	s	RES, METAL	5.1k	1% 1/6W
1-215-439-00	s	RES, METAL	5.6k	1% 1/6W
1-215-440-00	s	RES, METAL	6.2k	1% 1/6W
1-215-441-00	s	RES, METAL	6.8k	1% 1/6W
1-215-442-00	s	RES, METAL	7.5k	1% 1/6W
1-215-443-00	s	RES, METAL	8.2k	1% 1/6W
1-215-444-00	s	RES, METAL	9.1k	1% 1/6W
1-215-445-00	s	RES, METAL	10k	1% 1/6W
1-215-446-00	s	RES, METAL	11k	1% 1/6W
1-215-447-00	s	RES, METAL	12k	1% 1/6W
1-215-448-00	s	RES, METAL	13k	1% 1/6W
1-215-449-00	s	RES, METAL	15k	1% 1/6W
1-215-450-00	s	RES, METAL	16k	1% 1/6W
1-215-451-00	s	RES, METAL	18k	1% 1/6W
1-215-452-00	s	RES, METAL	20k	1% 1/6W
1-215-453-00	s	RES, METAL	22k	1% 1/6W
1-215-454-00	s	RES, METAL	24k	1% 1/6W
1-215-455-00	s	RES, METAL	27k	1% 1/6W
1-215-456-00	s	RES, METAL	30k	1% 1/6W
1-215-457-00	s	RES, METAL	33k	1% 1/6W
1-215-458-00	s	RES, METAL	36k	1% 1/6W
1-215-459-00	s	RES, METAL	39k	1% 1/6W
1-215-460-00	s	RES, METAL	43k	1% 1/6W
1-215-461-00	s	RES, METAL	47k	1% 1/6W
1-215-462-00	s	RES, METAL	51k	1% 1/6W
1-215-463-00	s	RES, METAL	56k	1% 1/6W
1-215-464-00	s	RES, METAL	62k	1% 1/6W
1-215-465-00	s	RES, METAL	68k	1% 1/6W
1-215-466-00	s	RES, METAL	75k	1% 1/6W
1-215-467-00	s	RES, METAL	82k	1% 1/6W
1-215-468-00	s	RES, METAL	91k	1% 1/6W
1-215-469-00	s	RES, METAL	100k	1% 1/6W
1-215-470-00	s	RES, METAL	110k	1% 1/6W
1-215-471-00	s	RES, METAL	120k	1% 1/6W
1-215-472-00	s	RES, METAL	130k	1% 1/6W
1-215-473-00	s	RES, METAL	150k	1% 1/6W
1-215-474-00	s	RES, METAL	160k	1% 1/6W
1-215-475-00	s	RES, METAL	180k	1% 1/6W
1-215-476-00	s	RES, METAL	200k	1% 1/6W
1-215-477-00	s	RES, METAL	220k	1% 1/6W
1-215-478-00	s	RES, METAL	240k	1% 1/6W
1-215-479-00	s	RES, METAL	270k	1% 1/6W
1-215-480-00	s	RES, METAL	300k	1% 1/6W
1-215-481-00	s	RES, METAL	330k	1% 1/6W
1-215-482-00	s	RES, METAL	360k	1% 1/6W
1-215-483-00	s	RES, METAL	390k	1% 1/6W
1-215-484-00	s	RES, METAL	430k	1% 1/6W
1-215-485-00	s	RES, METAL	470k	1% 1/6W
1-215-486-00	s	RES, METAL	510k	1% 1/6W
1-215-487-00	s	RES, METAL	560k	1% 1/6W
1-215-488-00	s	RES, METAL	620k	1% 1/6W
1-215-489-00	s	RES, METAL	680k	1% 1/6W
1-215-490-00	s	RES, METAL	750k	1% 1/6W
1-215-491-00	s	RES, METAL	820k	1% 1/6W
1-215-492-00	s	RES, METAL	910k	1% 1/6W
1-215-493-00	s	RES, METAL	1.0M	1% 1/6W

# AC-81/96, AFM-1A

Ref.No. Parts No. SP Description

## 3) AC-81 BOARD

1-622-608-12 o PRINTED CIRCUIT BOARD, AC-81

△ C1	1-136-185-00	s	FILM	0.22	20%	250V
C2	1-161-742-00	s	CERAMIC	0.0022	20%	400V
C3	1-161-742-00	s	CERAMIC	0.0022	20%	400V
C4	1-161-742-00	s	CERAMIC	0.0022	20%	400V

△ CN420	1-564-241-00	o	4P
	1-562-285-11	o	4P HOUSING
	1-562-210-11	o	4P CONTACT
CN421	1-564-674-11	o	8P
	1-562-640-11	o	8P HOUSING
	1-562-210-11	o	8P CONTACT

RI 1-214-937-00 s CARBON 1M 5% 1/2W

## 4) AC-96 BOARD

1-628-132-12 o PRINTED CIRCUIT BOARD, AC-96

△ C1	1-136-185-00	s	FILM	0.22	20%	250V
C2	1-161-742-00	s	CERAMIC	0.0022	20%	400V
C3	1-161-742-00	s	CERAMIC	0.0022	20%	400V
C4	1-161-742-00	s	CERAMIC	0.0022	20%	400V

△ CN420	1-564-241-00	o	4P
	1-562-285-11	o	4P HOUSING
	1-562-210-11	o	4P CONTACT
CN421	1-564-674-11	o	8P
	1-562-640-11	o	8P HOUSING
	1-562-210-11	o	8P CONTACT

RI 1-214-937-00 s CARBON 1M 5% 1/2W

Ref.No. Parts No. SP Description

## AFM-1A BOARD

This board includes the FL-61 board.

A-6713-914-A o MOUNTED CIRCUIT BOARD, AFM-1A

C2	1-163-033-00	s	CERAMIC	0.022		50V
C4	1-163-033-00	s	CERAMIC	0.022		50V
C9	1-163-033-00	s	CERAMIC	0.022		50V
C15	1-124-463-00	s	ELECT	0.1	20%	50V
C17	1-163-033-00	s	CERAMIC	0.022		50V

C21	1-163-033-00	s	CERAMIC	0.022		50V
C27	1-124-463-00	s	ELECT	0.1	20%	50V
C29	1-163-033-00	s	CERAMIC	0.022		50V
C103	1-163-033-00	s	CERAMIC	0.022		50V
C113	1-123-369-00	s	ELECT	4.7	20%	25V

C114	1-163-033-00	s	CERAMIC	0.022		50V
C115	1-163-135-00	s	CERAMIC	560pF	5%	50V
C116	1-124-499-11	s	ELECT	1	20%	50V
C119	1-163-033-00	s	CERAMIC	0.022		50V
C125	1-124-462-00	s	ELECT	10	20%	16V

C130	1-123-369-00	s	ELECT	4.7	20%	25V
C131	1-163-135-00	s	CERAMIC	560pF	5%	50V
C132	1-124-499-11	s	ELECT	1	20%	50V
C136	1-163-033-00	s	CERAMIC	0.022		50V
C137	1-124-899-00	s	ELECT	22	20%	25V

C141	1-163-033-00	s	CERAMIC	0.022		50V
C203	1-163-033-00	s	CERAMIC	0.022		50V
C213	1-123-369-00	s	ELECT	4.7	20%	25V
C214	1-163-033-00	s	CERAMIC	0.022		50V
C215	1-163-135-00	s	CERAMIC	560pF	5%	50V

C216	1-124-499-11	s	ELECT	1	20%	50V
C219	1-163-033-00	s	CERAMIC	0.022		50V
C225	1-124-462-00	s	ELECT	10	20%	16V
C230	1-123-369-00	s	ELECT	4.7	20%	25V
C231	1-163-135-00	s	CERAMIC	560pF	5%	50V

C232	1-124-499-11	s	ELECT	1	20%	50V
C235	1-124-899-00	s	ELECT	22	20%	25V
C237	1-163-033-00	s	CERAMIC	0.022		50V
C302	1-163-033-00	s	CERAMIC	0.022		50V
C304	1-163-037-11	s	CERAMIC	0.022		25V

C311	1-163-033-00	s	CERAMIC	0.022		50V
C313	1-163-033-00	s	CERAMIC	0.022		50V
C316	1-124-638-11	s	ELECT	22	20%	10V
C323	1-124-899-00	s	ELECT	22	20%	25V
C402	1-163-033-00	s	CERAMIC	0.022		50V

C404	1-163-033-00	s	CERAMIC	0.022		50V
C411	1-163-033-00	s	CERAMIC	0.022		50V
C413	1-163-033-00	s	CERAMIC	0.022		50V
C416	1-124-638-11	s	ELECT	22	20%	10V
C423	1-124-899-00	s	ELECT	22	20%	25V

C511	1-131-370-00	s	TANTAL	6.8	10%	10V
C514	1-131-343-00	s	TANTAL	0.22	10%	35V
C515	1-163-033-00	s	CERAMIC	0.022		50V
C528	1-131-370-00	s	TANTAL	6.8	10%	10V
C701	1-126-103-11	s	ELECT	470	20%	16V

C702	1-163-033-00	s	CERAMIC	0.022		50V
C706	1-126-103-11	s	ELECT	470	20%	16V
C707	1-163-037-11	s	CERAMIC	0.022	10%	25V
C708	1-126-103-11	s	ELECT	470	20%	16V
C709	1-163-033-00	s	CERAMIC	0.022		50V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
C713	1-126-103-11	s	ELECT 470 20% 16V
C714	1-163-037-11	s	CERAMIC 0.022 10% 25V
C725	1-163-033-00	s	CERAMIC 0.022 50V
C728	1-163-033-00	s	CERAMIC 0.022 50V
C729	1-163-033-00	s	CERAMIC 0.022 50V
C902	1-124-899-00	s	ELECT 22 20% 25V
C903	1-124-899-00	s	ELECT 22 20% 25V
C904	1-124-899-00	s	ELECT 22 20% 25V
C905	1-124-899-00	s	ELECT 22 20% 25V
C907	1-102-106-00	s	CERAMIC 100pF 10% 50V
C908	1-102-106-00	s	CERAMIC 100pF 10% 50V

- 3) CN202 1-506-748-31 s DIN 96P  
 4) CN202 1-506-748-11 s DIN 96P

D101	8-719-101-23	s	1S8123
D102	8-719-101-23	s	1S8123
D201	8-719-101-23	s	1S8123
D202	8-719-101-23	s	1S8123
D901	8-719-100-03	s	1S2835

D902	8-719-100-03	s	1S2835
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FL1	1-236-590-11	s	LOW-PASS 1.0MHz
FL2	1-236-590-11	s	LOW-PASS 1.0MHz
FL3	1-236-012-11	s	BANDPASS 310kHz
FL4	1-236-013-11	s	BANDPASS 540kHz
FL5	1-236-013-11	s	BANDPASS 540kHz

FL6	1-236-012-11	s	BANDPASS 310kHz
FL9	1-236-003-11	s	LOW-PASS

IC1	8-759-403-78	s	AN3920K (MATSUSHITA)
IC2	8-759-403-78	s	AN3920K (MATSUSHITA)
IC101	8-759-403-77	s	AN3922NK (MATSUSHITA)
IC102	8-759-403-77	s	AN3922NK (MATSUSHITA)
IC103	8-759-208-11	s	TC4053BFHB (TOSHIBA)

IC104	8-759-700-84	s	NJM2041M-D (JRC)
IC201	8-759-403-77	s	AN3922NK (MATSUSHITA)
IC202	8-759-403-77	s	AN3922NK (MATSUSHITA)
IC303	8-759-700-84	s	NJM2041M-D (JRC)
IC304	8-759-700-94	s	NJM5532M (JRC)

IC403	8-759-700-84	s	NJM2041M-D (JRC)
IC404	8-759-700-94	s	NJM5532M (JRC)
IC501	8-752-009-90	s	CX20099 (SONY)
IC701	8-759-200-68	s	TC4011BF (TOSHIBA)
IC702	8-759-200-78	s	TC4030BF (TOSHIBA)

IC703	8-759-205-78	s	TC504013BF (TOSHIBA)
IC704	8-759-200-90	s	TC4538BF (TOSHIBA)
IC705	8-759-200-90	s	TC4538BF (TOSHIBA)
IC706	8-759-200-67	s	TC4001BF (TOSHIBA)
IC707	8-759-200-68	s	TC4011BF (TOSHIBA)

IC708	8-759-982-22	s	RC78106A (RAYTHEON)
IC710	8-759-982-05	s	RC7805FA (RAYTHEON)

Ref.No.	Parts No.	SP	Description
L1	1-410-482-31	s	MICRO 100
L2	1-410-482-31	s	MICRO 100
L3	1-410-482-31	s	MICRO 100
L4	1-410-482-31	s	MICRO 100
L101	1-410-482-31	s	MICRO 100
L102	1-410-064-11	s	MICRO 2.7MMH
L103	1-410-064-11	s	MICRO 2.7MMH
L104	1-410-482-31	s	MICRO 100
L201	1-410-482-31	s	MICRO 100
L202	1-410-064-11	s	MICRO 2.7MMH
L203	1-410-064-11	s	MICRO 2.7MMH
L701	1-459-155-00	s	45 (WITH CORE)
L702	1-459-155-00	s	45 (WITH CORE)

Q1	8-729-271-22	s	2SC2712-G
Q2	8-729-271-22	s	2SC2712-G
Q3	8-729-271-22	s	2SC2712-G
Q4	8-729-271-22	s	2SC2712-G
Q304	8-766-001-49	s	TX429M
Q404	8-766-001-49	s	TX429M
Q701	8-729-177-33	s	2SD773-4
Q702	8-729-113-33	s	2SB733-4
Q705	8-729-901-05	s	DTA124EK
Q706	8-729-901-05	s	DTA124EK

Q707	8-729-901-05	s	DTA124EK
Q901	8-729-271-22	s	2SC2712-G
Q902	8-729-271-22	s	2SC2712-G
Q903	8-729-202-38	s	2SC3326N
Q904	8-729-202-38	s	2SC3326N

R3	1-216-649-11	s	METAL CHIP 820 0.50% 1/10W
R4	1-216-641-11	s	METAL CHIP 390 0.50% 1/10W
R8	1-216-649-11	s	METAL CHIP 820 0.50% 1/10W
R9	1-216-641-11	s	METAL CHIP 390 0.50% 1/10W
R12	1-216-679-11	s	METAL CHIP 15k 0.50% 1/10W

R13	1-216-685-11	s	METAL CHIP 27k 0.50% 1/10W
R15	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W
R16	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W
R17	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W
R18	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W

R20	1-216-679-11	s	METAL CHIP 15k 0.50% 1/10W
R21	1-216-685-11	s	METAL CHIP 27k 0.50% 1/10W
R23	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W
R24	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W
R25	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W

R26	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W
R101	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R103	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R108	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R110	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W

R115	1-216-655-11	s	METAL CHIP 1.5k 0.50% 1/10W
R116	1-216-655-11	s	METAL CHIP 1.5k 0.50% 1/10W
R120	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R121	1-216-655-11	s	METAL CHIP 1.5k 0.50% 1/10W
R130	1-216-644-11	s	METAL CHIP 510 0.50% 1/10W

R131	1-216-644-11	s	METAL CHIP 510 0.50% 1/10W
R201	1-216-670-11	s	METAL CHIP 6.2k 0.50% 1/10W
R203	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R208	1-216-670-11	s	METAL CHIP 6.2k 0.50% 1/10W
R210	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".



# AFM-1A, AU-118P

Ref.No.	Parts No.	SP	Description
R215	1-216-655-11	s	METAL CHIP 1.5k 0.50% 1/10W
R216	1-216-655-11	s	METAL CHIP 1.5k 0.50% 1/10W
R220	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R221	1-216-655-11	s	METAL CHIP 1.5k 0.50% 1/10W
R314	1-216-666-11	s	METAL CHIP 4.3k 0.50% 1/10W
R323	1-216-664-11	s	METAL CHIP 3.6k 0.50% 1/10W
R324	1-216-671-11	s	METAL CHIP 6.8k 0.50% 1/10W
R414	1-216-666-11	s	METAL CHIP 4.3k 0.50% 1/10W
R423	1-216-664-11	s	METAL CHIP 3.6k 0.50% 1/10W
R424	1-216-671-11	s	METAL CHIP 6.8k 0.50% 1/10W
R501	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R504	1-216-661-11	s	METAL CHIP 2.7k 0.50% 1/10W
R505	1-216-647-11	s	METAL CHIP 680 0.50% 1/10W
R506	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R508	1-216-665-11	s	METAL CHIP 3.9k 0.50% 1/10W
R509	1-216-677-11	s	METAL CHIP 12k 0.50% 1/10W
R511	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R512	1-216-661-11	s	METAL CHIP 2.7k 0.50% 1/10W
R513	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R515	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R519	1-216-661-11	s	METAL CHIP 2.7k 0.50% 1/10W
R520	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R521	1-216-647-11	s	METAL CHIP 680 0.50% 1/10W
R522	1-216-677-11	s	METAL CHIP 12k 0.50% 1/10W
R523	1-216-665-11	s	METAL CHIP 3.9k 0.50% 1/10W
R524	1-216-661-11	s	METAL CHIP 2.7k 0.50% 1/10W
R525	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R526	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R527	1-216-669-11	s	METAL CHIP 5.6k 0.50% 1/10W
R707	1-216-692-11	s	METAL CHIP 51k 0.50% 1/10W
R708	1-216-692-11	s	METAL CHIP 51k 0.50% 1/10W
R709	1-216-679-11	s	METAL CHIP 15k 0.50% 1/10W
R718	1-216-682-11	s	METAL CHIP 20k 0.50% 1/10W
R719	1-216-682-11	s	METAL CHIP 20k 0.50% 1/10W
R721	1-216-682-11	s	METAL CHIP 20k 0.50% 1/10W
RV2	1-237-520-21	s	VAR, CERMET 50k
RV4	1-237-520-21	s	VAR, CERMET 50k
RV5	1-237-519-21	s	VAR, CERMET 20k
RV6	1-237-519-21	s	VAR, CERMET 20k
RV101	1-237-516-21	s	VAR, CERMET 2k
RV102	1-237-517-21	s	VAR, CERMET 5k
RV103	1-237-516-21	s	VAR, CERMET 2k
RV105	1-237-519-21	s	VAR, CERMET 20k
RV201	1-237-516-21	s	VAR, CERMET 2k
RV202	1-237-517-21	s	VAR, CERMET 5k
RV203	1-237-516-21	s	VAR, CERMET 2k
RV205	1-237-519-21	s	VAR, CERMET 20k
S1	1-571-259-11	s	SLIDE

Ref.No. Parts No. SP Description

## AU-118P BOARD

A-6713-330-B o MOUNTED CIRCUIT BOARD, AU-118P

C1	1-126-103-11	s	ELECT	470	20%	16V
C2	1-126-103-11	s	ELECT	470	20%	16V
C5	1-126-103-11	s	ELECT	470	20%	16V
C6	1-126-103-11	s	ELECT	470	20%	16V
C7	1-127-503-00	s	ELECT	0.33		25V
C8	1-127-503-00	s	ELECT	0.33		25V
C9	1-127-503-00	s	ELECT	0.33		25V
C10	1-127-503-00	s	ELECT	0.33		25V
C23	1-124-236-00	s	ELECT	47	20%	16V
C24	1-124-236-00	s	ELECT	47	20%	16V
C112	1-124-598-11	s	ELECT	22	20%	25V
C113	1-124-462-00	s	ELECT	10	20%	16V
C117	1-124-462-00	s	ELECT	10	20%	16V
C119	1-124-236-00	s	ELECT	47	20%	16V
C120	1-124-236-00	s	ELECT	47	20%	16V
C124	1-124-236-00	s	ELECT	47	20%	16V
C132	1-124-462-00	s	ELECT	10	20%	16V
C151	1-124-462-00	s	ELECT	10	20%	16V
C155	1-124-234-00	s	ELECT	22	20%	16V
C157	1-124-234-00	s	ELECT	22	20%	16V
C158	1-124-234-00	s	ELECT	22	20%	16V
4) C164	1-162-889-11	s	CERAMIC	680pF	5%	50V
C174	1-124-234-00	s	ELECT	22	20%	16V
C179	1-124-234-00	s	ELECT	22	20%	16V
C212	1-124-598-11	s	ELECT	22	20%	25V
C213	1-124-462-00	s	ELECT	10	20%	16V
C217	1-124-462-00	s	ELECT	10	20%	16V
C219	1-124-236-00	s	ELECT	47	20%	16V
C220	1-124-236-00	s	ELECT	47	20%	16V
C224	1-124-236-00	s	ELECT	47	20%	16V
C232	1-124-462-00	s	ELECT	10	20%	16V
C251	1-124-462-00	s	ELECT	10	20%	16V
C255	1-124-234-00	s	ELECT	22	20%	16V
C257	1-124-234-00	s	ELECT	22	20%	16V
C258	1-124-234-00	s	ELECT	22	20%	16V
4) C264	1-162-889-11	s	CERAMIC	680pF	5%	50V
C274	1-124-234-00	s	ELECT	22	20%	16V
3) CN204	1-506-748-31	s	DIN 96P			
4) CN204	1-506-748-11	s	DIN 96P			
D1	8-719-200-02	s	10E2			
D2	8-719-200-02	s	10E2			
D303	8-719-100-05	s	1S2837			
FL101	1-236-003-11	s	LOW-PASS	15kHz		
IC1	8-759-708-05	s	NJM78L05A (JRC)			
IC2	8-759-700-65	s	NJM79L05A (JRC)			
IC101	8-759-145-58	s	NJM2043M-D (JRC)			
IC102	8-759-145-58	s	uPC4558C (NEC)			
IC103	8-741-115-20	s	BX1152 (SONY)			

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

IC104 8-759-700-94 s NJM5532M (JRC)  
 IC105 8-759-145-58 s uPC4558C (NEC)  
 IC106 8-759-700-09 s NJM2043M-D (JRC)  
 IC201 8-759-145-58 s uPC4558C (NEC)  
 IC202 8-759-145-58 s uPC4558C (NEC)

IC203 8-741-115-20 s BX1152 (SONY)  
 IC204 8-759-700-94 s NJM5532M (JRC)  
 IC205 8-759-145-58 s uPC4558C (NEC)  
 IC206 8-759-700-09 s NJM2043M-D (JRC)

L3 1-459-155-00 s 45 (WITH CORE)

LV101 1-459-434-00 s VAR 22MMH  
 LV201 1-459-434-00 s VAR 22MMH

Q1 8-729-216-21 s 2SA1162-Y  
 Q2 8-729-901-01 s DTC144EK  
 Q3 8-729-905-53 s 2SD1055-R  
 Q4 8-729-982-22 s 2SB822  
 Q5 8-729-901-01 s DTC144EK

Q6 8-729-901-06 s DTA144EK  
 Q104 8-729-202-38 s 2SC3326N  
 Q115 8-729-202-38 s 2SC3326N  
 Q116 8-729-202-38 s 2SC3326N  
 Q117 8-729-202-38 s 2SC3326N

Q118 8-729-109-42 s 2SK94-X2  
 Q119 8-729-901-01 s DTC144EK  
 Q120 8-729-202-38 s 2SC3326N  
 Q204 8-729-202-38 s 2SC3326N  
 Q215 8-729-202-38 s 2SC3326N

Q216 8-729-202-38 s 2SC3326N  
 Q217 8-729-202-38 s 2SC3326N  
 Q218 8-729-109-42 s 2SK94-X2  
 Q219 8-729-901-01 s DTC144EK  
 Q220 8-729-202-38 s 2SC3326N

Q309 8-729-901-06 s DTA144EK  
 Q310 8-729-901-06 s DTA144EK  
 Q311 8-729-901-06 s DTA144EK

R113 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R114 1-216-678-11 s METAL CHIP 13k 0.50% 1/10W  
 R144 1-216-691-11 s METAL CHIP 47k 0.50% 1/10W  
 R145 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
 R146 1-216-697-11 s METAL CHIP 82k 0.50% 1/10W

R148 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
 R150 1-216-684-11 s METAL CHIP 24k 0.50% 1/10W  
 R152 1-216-681-11 s METAL CHIP 18k 0.50% 1/10W  
 R153 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R155 1-216-694-11 s METAL CHIP 51k 0.50% 1/10W

R157 1-216-681-11 s METAL CHIP 18k 0.50% 1/10W  
 R166 1-216-698-11 s METAL CHIP 91k 0.50% 1/10W  
 R167 1-216-631-11 s METAL CHIP 150 0.50% 1/10W  
 R168 1-216-633-11 s METAL CHIP 180 0.50% 1/10W  
 R183 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W

Ref.No. Parts No. SP Description

R185 1-216-699-11 s METAL CHIP 100k 0.50% 1/10W  
 R188 1-216-694-11 s METAL CHIP 62k 0.50% 1/10W  
 R190 1-216-658-11 s METAL CHIP 2k 0.50% 1/10W  
 R191 1-216-294-00 s CHIP 10M 5% 1/8W  
 R192 1-216-294-00 s CHIP 10M 5% 1/8W

R194 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R213 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R214 1-216-678-11 s METAL CHIP 13k 0.50% 1/10W  
 R244 1-216-691-11 s METAL CHIP 47k 0.50% 1/10W  
 R245 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W

R246 1-216-697-11 s METAL CHIP 82k 0.50% 1/10W  
 R248 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
 R250 1-216-699-11 s METAL CHIP 100k 0.50% 1/10W  
 R252 1-216-691-11 s METAL CHIP 47k 0.50% 1/10W  
 R253 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W

R255 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
 R257 1-216-681-11 s METAL CHIP 18k 0.50% 1/10W  
 R266 1-216-698-11 s METAL CHIP 91k 0.50% 1/10W  
 R267 1-216-631-11 s METAL CHIP 150 0.50% 1/10W  
 R268 1-216-633-11 s METAL CHIP 180 0.50% 1/10W

R283 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
 R285 1-216-699-11 s METAL CHIP 100k 0.50% 1/10W  
 R288 1-216-694-11 s METAL CHIP 62k 0.50% 1/10W  
 R290 1-216-658-11 s METAL CHIP 2k 0.50% 1/10W  
 R291 1-216-294-00 s CHIP 10M 5% 1/8W

R292 1-216-294-00 s CHIP 10M 5% 1/8W  
 R294 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W

RV110 1-237-522-21 s VAR, CERMET 200k  
 RV111 1-237-517-21 s VAR, CERMET 5k  
 RV112 1-237-518-21 s VAR, CERMET 10k  
 RV113 1-237-517-21 s VAR, CERMET 5k  
 RV114 1-237-514-21 s VAR, CERMET 500

RV210 1-237-522-21 s VAR, CERMET 200k  
 RV211 1-237-517-21 s VAR, CERMET 5k  
 RV212 1-237-518-21 s VAR, CERMET 10k  
 RV213 1-237-517-21 s VAR, CERMET 5k  
 RV214 1-237-514-21 s VAR, CERMET 500

S101 1-570-598-11 s DIP  
 S202 1-570-598-11 s DIP

SP101 1-564-947-11 s PIN, SHORT  
 SP201 1-564-947-11 s PIN, SHORT

**BF-28A BOARD**

A-6713-916-A o MOUNTED CIRCUIT BOARD, BF-28A

C101 1-124-236-00 s ELECT 47 20% 10V  
 C102 1-124-236-00 s ELECT 47 20% 10V  
 C201 1-124-236-00 s ELECT 47 20% 10V  
 C202 1-124-236-00 s ELECT 47 20% 10V  
 C301 1-124-236-00 s ELECT 47 20% 10V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

C302	1-124-236-00	s	ELECT	47	20%	10V
C401	1-124-236-00	s	ELECT	47	20%	10V
C402	1-124-236-00	s	ELECT	47	20%	10V
C501	1-124-462-00	s	ELECT	10	20%	16V
C502	1-124-257-11	s	ELECT	2.2	20%	50V

C503	1-124-257-11	s	ELECT	2.2	20%	50V
C505	1-124-462-00	s	ELECT	10	20%	16V
C506	1-135-100-21	s	TANTAL	6.8	20%	6.3V
C601	1-124-462-00	s	ELECT	10	20%	16V
C602	1-124-257-11	s	ELECT	2.2	20%	50V

C603	1-124-257-11	s	ELECT	2.2	20%	50V
C605	1-124-462-00	s	ELECT	10	20%	16V
C606	1-135-100-21	s	TANTAL	6.8	20%	6.3V
C701	1-124-462-00	s	ELECT	10	20%	16V
C702	1-124-257-11	s	ELECT	2.2	20%	50V

C703	1-124-257-11	s	ELECT	2.2	20%	50V
C705	1-124-462-00	s	ELECT	10	20%	16V
C706	1-135-100-21	s	TANTAL	6.8	20%	6.3V
C801	1-124-462-00	s	ELECT	10	20%	16V
C802	1-124-257-11	s	ELECT	2.2	20%	50V

C803	1-124-257-11	s	ELECT	2.2	20%	50V
C805	1-124-462-00	s	ELECT	10	20%	16V
C806	1-135-100-21	s	TANTAL	6.8	20%	6.3V
C901	1-124-236-00	s	ELECT	47	20%	10V
C902	1-124-236-00	s	ELECT	47	20%	10V

C903	1-124-229-00	s	ELECT	33	20%	6.3V
C904	1-124-229-00	s	ELECT	33	20%	6.3V
C905	1-124-229-00	s	ELECT	33	20%	6.3V
C906	1-124-229-00	s	ELECT	33	20%	6.3V

D501	8-719-101-23	s	1SS123			
D502	8-719-101-23	s	1SS123			
D503	8-719-100-05	s	1S2837			
D505	8-719-101-23	s	1SS123			
D506	8-719-101-23	s	1SS123			

D601	8-719-101-23	s	1SS123			
D602	8-719-101-23	s	1SS123			
D603	8-719-100-05	s	1S2837			
D605	8-719-101-23	s	1SS123			
D606	8-719-101-23	s	1SS123			

D701	8-719-101-23	s	1SS123			
D702	8-719-101-23	s	1SS123			
D703	8-719-100-05	s	1S2837			
D705	8-719-101-23	s	1SS123			
D706	8-719-101-23	s	1SS123			

D801	8-719-101-23	s	1SS123			
D802	8-719-101-23	s	1SS123			
D803	8-719-100-05	s	1S2837			
D805	8-719-101-23	s	1SS123			
D806	8-719-101-23	s	1SS123			

D901	8-719-100-03	s	1S2835			
D902	8-719-101-23	s	1SS123			

IC101	8-759-700-84	s	NJM2041M-D (JRC)			
IC201	8-759-700-84	s	NJM2041M-D (JRC)			
IC301	8-759-700-84	s	NJM2041M-D (JRC)			
IC401	8-759-700-84	s	NJM2041M-D (JRC)			
IC501	8-759-981-54	s	RC2041MD (RAYTHEON)			

IC502	8-759-981-54	s	RC2041MD (RAYTHEON)			
IC503	8-759-745-64	s	NJM4560M (JRC)			
IC601	8-759-981-54	s	RC2041MD (RAYTHEON)			
IC602	8-759-981-54	s	RC2041MD (RAYTHEON)			
IC701	8-759-981-54	s	RC2041MD (RAYTHEON)			

Ref.No. Parts No. SP Description

IC702	8-759-981-54	s	RC2041MD (RAYTHEON)			
IC703	8-759-745-64	s	NJM4560M (JRC)			
IC801	8-759-981-54	s	RC2041MD (RAYTHEON)			
IC802	8-759-981-54	s	RC2041MD (RAYTHEON)			
IC901	8-759-208-09	s	TC4052BFHB (TOSHIBA)			

IC902	8-759-700-84	s	NJM2041M-D (JRC)			
IC903	8-759-200-78	s	TC4030BF (TOSHIBA)			
IC904	8-759-745-64	s	NJM4560M (JRC)			

Q501	8-729-202-38	s	2SC3326N			
Q601	8-729-202-38	s	2SC3326N			
Q701	8-729-202-38	s	2SC3326N			
Q801	8-729-202-38	s	2SC3326N			
Q901	8-729-905-53	s	2SD1055-R			

Q902	8-729-982-23	s	2SB822			
Q903	8-729-801-46	s	2SC3064-F			

R503	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R504	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R505	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R506	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W	
R507	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	

R509	1-216-693-11	s	METAL CHIP 56k	0.50%	1/10W	
R510	1-216-748-11	s	METAL 39k	5%	1/10W	
R512	1-216-685-11	s	METAL CHIP 27k	0.50%	1/10W	
R513	1-216-689-11	s	METAL CHIP 39k	0.50%	1/10W	
R516	1-216-677-11	s	METAL CHIP 12k	0.50%	1/10W	

R521	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
R522	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R603	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R604	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R605	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	

R606	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W	
R607	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R609	1-216-693-11	s	METAL CHIP 56k	0.50%	1/10W	
R610	1-216-748-11	s	METAL 39k	5%	1/10W	
R612	1-216-685-11	s	METAL CHIP 27k	0.50%	1/10W	

R613	1-216-689-11	s	METAL CHIP 39k	0.50%	1/10W	
R616	1-216-677-11	s	METAL CHIP 12k	0.50%	1/10W	
R621	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
R622	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R703	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	

R704	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R705	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R706	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W	
R707	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R709	1-216-693-11	s	METAL CHIP 56k	0.50%	1/10W	

R710	1-216-748-11	s	METAL 39k	5%	1/10W	
R712	1-216-685-11	s	METAL CHIP 27k	0.50%	1/10W	
R713	1-216-689-11	s	METAL CHIP 39k	0.50%	1/10W	
R716	1-216-677-11	s	METAL CHIP 12k	0.50%	1/10W	
R721	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	

R722	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R803	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R804	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R805	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R806	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W	

R807	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W	
R809	1-216-693-11	s	METAL CHIP 56k	0.50%	1/10W	
R810	1-216-748-11	s	METAL 39k	5%	1/10W	
R812	1-216-685-11	s	METAL CHIP 27k	0.50%	1/10W	
R813	1-216-689-11	s	METAL CHIP 39k	0.50%	1/10W	

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# BF-28A, CCM-2, CL-14/24, CP-101AP/103AP

Ref.No.	Parts No.	SP	Description
R816	1-216-677-11	s	METAL CHIP 12k 0.50% 1/10W
R821	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R822	1-216-686-11	s	METAL CHIP 30k 0.50% 1/10W
R921	1-216-686-11	s	METAL CHIP 30k 0.50% 1/10W
R922	1-216-686-11	s	METAL CHIP 30k 0.50% 1/10W
R923	1-216-686-11	s	METAL CHIP 30k 0.50% 1/10W
R924	1-216-679-11	s	METAL CHIP 15k 0.50% 1/10W
R925	1-216-686-11	s	METAL CHIP 30k 0.50% 1/10W

RV102	1-237-502-21	s	VAR, CERMET 5k
RV202	1-237-502-21	s	VAR, CERMET 5k
RV302	1-237-502-21	s	VAR, CERMET 5k
RV402	1-237-502-21	s	VAR, CERMET 5k
RV501	1-237-518-21	s	VAR, CERMET 10k

RV601	1-237-518-21	s	VAR, CERMET 10k
RV701	1-237-518-21	s	VAR, CERMET 10k
RV801	1-237-518-21	s	VAR, CERMET 10k
RV901	1-237-519-21	s	VAR, CERMET 20k
RV902	1-237-517-21	s	VAR, CERMET 5k

RV903	1-237-518-21	s	VAR, CERMET 10k
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## CCM-2 BOARD

1-623-198-11 o PRINTED CIRCUIT BOARD, CCM-2

MO08	1-541-376-11	s	MOTOR, DC (DNR-4700A)
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## CL-14 BOARD

1-622-602-11 o PRINTED CIRCUIT BOARD, CL-14

CN332	1-563-969-11	o	7P
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## CL-24 BOARD

A-6724-835-A s MOUNTED CIRCUIT BOARD, CL-24

D1	8-719-820-27	s	TLY256
D2	8-719-820-27	s	TLY256
D3	8-719-820-27	s	TLY256
D4	8-719-820-27	s	TLY256
D5	8-719-820-27	s	TLY256

D6	8-719-820-27	s	TLY256
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R1	1-247-702-11	s	CARBON 150 5% 1/4W
R2	1-247-702-11	s	CARBON 150 5% 1/4W
R3	1-247-702-11	s	CARBON 150 5% 1/4W

Ref.No. Parts No. SP Description

## CP-101AP BOARD

A-6729-737-A o MOUNTED CIRCUIT BOARD, CP-101AP

C4	1-124-584-00	s	ELECT 100 20% 10V
C8	1-124-584-00	s	ELECT 100 20% 10V
C10	1-124-584-00	s	ELECT 100 20% 10V
C52	1-124-584-00	s	ELECT 100 20% 10V
C54	1-124-584-00	s	ELECT 100 20% 10V

FB3	1-535-178-00	s	FERRITE BEAD
FB4	1-535-178-00	s	FERRITE BEAD
FB6	1-535-178-00	s	FERRITE BEAD

IC2	8-752-015-81	s	CX20158 (SONY)
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L1	1-410-482-31	s	MICRO 100
L2	1-410-482-31	s	MICRO 100

S2	1-570-157-51	s	SLIDE
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## CP-103AP BOARD

A-6717-486-A o MOUNTED CIRCUIT BOARD, CP-103AP

C1	1-124-234-00	s	ELECT 22 20% 16V
C3	1-124-234-00	s	ELECT 22 20% 16V

CN501	1-559-264-11	o	WIRE ASS'Y, FLAT TYPE (30 CORE)
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IC1	8-759-208-11	s	TC4053BFHB (TOSHIBA)
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L1	1-410-470-31	s	MICRO 10
L2	1-410-470-31	s	MICRO 10

Q1	8-729-901-05	s	DTC124EK
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RV1	1-237-696-11	s	VAR, CARBON 5k
RV2	1-237-696-11	s	VAR, CARBON 5k
RV3	1-237-696-11	s	VAR, CARBON 5k
RV4	1-237-695-11	s	VAR, CARBON 5k
RV6	1-237-696-11	s	VAR, CARBON 5k

RV1	1-237-696-11	s	VAR, CARBON 5k
RV2	1-237-696-11	s	VAR, CARBON 5k
RV3	1-237-696-11	s	VAR, CARBON 5k
RV4	1-237-695-11	s	VAR, CARBON 5k
RV6	1-237-696-11	s	VAR, CARBON 5k

RV7	1-237-695-11	s	VAR, CARBON 5k
RV8	1-237-696-11	s	VAR, CARBON 5k

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

S1 1-570-157-51 s SLIDE  
S2 1-570-157-51 s SLIDE  
S3 1-570-157-51 s SLIDE  
S4 1-570-157-51 s SLIDE  
S6 1-571-061-11 s SLIDE

S9 1-570-157-51 s SLIDE  
S10 1-570-157-51 s SLIDE  
S15 1-554-949-11 s SLIDE

CP-111 BOARD

This board includes the CP-113 board.

A-6713-274-A o MOUNTED CIRCUIT BOARD, CP-111

1-561-832-00 s SOCKET, SHORT

C20 1-136-153-00 s MYLAR 0.01 10% 50V  
C21 1-126-157-11 s ELECT 10 20% 16V  
C36 1-124-462-00 s ELECT 10 20% 16V  
C42 1-124-236-00 s ELECT 47 20% 16V  
C43 1-124-236-00 s ELECT 47 20% 16V

C158 1-124-462-00 s ELECT 10 20% 16V  
C159 1-124-462-00 s ELECT 10 20% 16V  
C160 1-124-462-00 s ELECT 10 20% 16V  
C161 1-124-462-00 s ELECT 10 20% 16V  
C162 1-126-103-11 s ELECT 470 20% 16V

C163 1-126-103-11 s ELECT 470 20% 16V  
C258 1-124-462-00 s ELECT 10 20% 16V  
C259 1-124-462-00 s ELECT 10 20% 16V  
C260 1-124-462-00 s ELECT 10 20% 16V  
C261 1-124-462-00 s ELECT 10 20% 16V

C262 1-126-103-11 s ELECT 470 20% 16V  
C263 1-126-103-11 s ELECT 470 20% 16V  
C264 1-126-103-11 s ELECT 470 20% 16V  
C265 1-126-103-11 s ELECT 470 20% 16V  
C266 1-102-106-00 s CERAMIC 100pF 10% 50V

C267 1-126-103-11 s ELECT 470 20% 16V  
C268 1-136-161-00 s MYLAR 0.047 10% 50V  
C269 1-126-103-11 s ELECT 470 20% 16V  
C270 1-136-161-00 s MYLAR 0.047 10% 50V  
C271 1-102-106-00 s CERAMIC 100pF 10% 50V

C273 1-124-462-00 s ELECT 10 20% 16V  
C358 1-124-462-00 s ELECT 10 20% 16V  
C359 1-124-462-00 s ELECT 10 20% 16V  
C360 1-124-462-00 s ELECT 10 20% 16V  
C361 1-124-462-00 s ELECT 10 20% 16V

C362 1-126-103-11 s ELECT 470 20% 16V  
C363 1-126-103-11 s ELECT 470 20% 16V  
C458 1-124-462-00 s ELECT 10 20% 16V  
C459 1-124-462-00 s ELECT 10 20% 16V  
C460 1-124-462-00 s ELECT 10 20% 16V

C461 1-124-462-00 s ELECT 10 20% 16V  
C462 1-126-103-11 s ELECT 470 20% 16V  
C463 1-126-103-11 s ELECT 470 20% 16V  
C464 1-126-103-11 s ELECT 470 20% 16V  
C658 1-124-462-00 s ELECT 10 20% 16V

Ref.No. Parts No. SP Description

C659 1-124-462-00 s ELECT 10 20% 16V  
C660 1-124-462-00 s ELECT 10 20% 16V  
C661 1-124-462-00 s ELECT 10 20% 16V  
C662 1-126-103-11 s ELECT 470 20% 16V  
C663 1-126-103-11 s ELECT 470 20% 16V

C664 1-126-103-11 s ELECT 470 20% 16V  
C665 1-126-103-11 s ELECT 470 20% 16V  
C666 1-102-106-00 s CERAMIC 100pF 10% 50V  
C667 1-126-103-11 s ELECT 470 20% 16V  
C668 1-136-161-00 s MYLAR 0.047 10% 50V

C669 1-126-103-11 s ELECT 470 20% 16V  
C670 1-136-161-00 s MYLAR 0.047 10% 50V  
C671 1-102-106-00 s CERAMIC 100pF 10% 50V

D1 8-719-100-43 s RD7.5  
D2 8-719-100-43 s RD7.5  
D3 8-719-100-43 s RD7.5  
D151 8-719-921-11 s HZ2ALL  
D152 8-719-911-19 s 1SS119

D153 8-719-911-19 s 1SS119  
D154 8-719-921-11 s HZ2ALL  
D155 8-719-921-11 s HZ2ALL  
D156 8-719-911-19 s 1SS119  
D157 8-719-911-19 s 1SS119

D158 8-719-921-11 s HZ2ALL  
D251 8-719-921-11 s HZ2ALL  
D252 8-719-911-19 s 1SS119  
D253 8-719-911-19 s 1SS119  
D254 8-719-921-11 s HZ2ALL

D255 8-719-921-11 s HZ2ALL  
D256 8-719-911-19 s 1SS119  
D257 8-719-911-19 s 1SS119  
D258 8-719-921-11 s HZ2ALL  
D259 8-719-200-02 s 10E2

D260 8-719-200-02 s 10E2  
D351 8-719-921-11 s HZ2ALL  
D352 8-719-911-19 s 1SS119  
D353 8-719-911-19 s 1SS119  
D354 8-719-921-11 s HZ2ALL

D355 8-719-921-11 s HZ2ALL  
D356 8-719-911-19 s 1SS119  
D357 8-719-911-19 s 1SS119  
D358 8-719-921-11 s HZ2ALL  
D451 8-719-921-11 s HZ2ALL

D452 8-719-911-19 s 1SS119  
D453 8-719-911-19 s 1SS119  
D454 8-719-921-11 s HZ2ALL  
D455 8-719-921-11 s HZ2ALL  
D456 8-719-911-19 s 1SS119

D457 8-719-911-19 s 1SS119  
D458 8-719-921-11 s HZ2ALL  
D551 8-719-921-11 s HZ2ALL  
D552 8-719-911-19 s 1SS119  
D553 8-719-911-19 s 1SS119

D554 8-719-921-11 s HZ2ALL  
D555 8-719-921-11 s HZ2ALL  
D556 8-719-911-19 s 1SS119  
D557 8-719-911-19 s 1SS119  
D558 8-719-921-11 s HZ2ALL

D651 8-719-921-11 s HZ2ALL  
D652 8-719-911-19 s 1SS119  
D653 8-719-911-19 s 1SS119  
D654 8-719-921-11 s HZ2ALL  
D655 8-719-921-11 s HZ2ALL

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

D656 8-719-911-19 s 1SS119  
 D657 8-719-911-19 s 1SS119  
 D658 8-719-921-11 s HZ2ALL

IC31 8-759-745-61 s NJM4560D-D (JRC)  
 IC32 8-759-208-12 s TC4016BPHB (TOSHIBA)  
 IC33 8-759-745-61 s NJM4560D-D (JRC)  
 IC34 8-759-745-61 s NJM4560D-D (JRC)  
 IC35 8-759-745-61 s NJM4560D-D (JRC)  
 IC36 8-759-208-12 s TC4016BPHB (TOSHIBA)  
 IC37 8-759-700-04 s NJM2043D-D (JRC)  
 IC38 8-759-208-12 s TC4016BPHB (TOSHIBA)  
 IC39 8-759-700-04 s NJM2043D-D (JRC)  
 IC40 8-759-700-04 s NJM2043D-D (JRC)

IC41 8-759-982-21 s RC78L05A (RAYTHEON)  
 IC42 8-759-208-12 s TC4016BPHB (TOSHIBA)

Q31 8-729-900-30 s DTA144EF  
 Q32 8-729-201-05 s 2SC2878-B  
 Q33 8-729-900-30 s DTA144EF  
 Q34 8-766-001-49 s TX429M  
 Q35 8-729-900-33 s DTC144EF

Q36 8-729-900-33 s DTC144EF  
 Q37 8-729-900-30 s DTA144EF  
 Q38 8-729-900-33 s DTC144EF  
 Q155 8-729-306-92 s 2SD669A\*(29)  
 Q156 8-729-304-92 s 2SB649A\*(29)

Q157 8-729-306-92 s 2SD669A\*(29)  
 Q158 8-729-304-92 s 2SB649A\*(29)  
 Q255 8-729-306-92 s 2SD669A\*(29)  
 Q256 8-729-304-92 s 2SB649A\*(29)  
 Q257 8-729-306-92 s 2SD669A\*(29)

Q258 8-729-304-92 s 2SB649A\*(29)  
 Q259 8-729-905-53 s 2SD1055-R  
 Q260 8-729-982-22 s 2SB822  
 Q261 8-729-117-54 s 2SA1175  
 Q355 8-729-306-92 s 2SD669A\*(29)

Q356 8-729-304-92 s 2SB649A\*(29)  
 Q357 8-729-306-92 s 2SD669A\*(29)  
 Q358 8-729-304-92 s 2SB649A\*(29)  
 Q455 8-729-306-92 s 2SD669A\*(29)  
 Q456 8-729-304-92 s 2SB649A\*(29)

Q457 8-729-306-92 s 2SD669A\*(29)  
 Q458 8-729-304-92 s 2SB649A\*(29)  
 Q459 8-729-905-53 s 2SD1055-R  
 Q460 8-729-982-22 s 2SB822  
 Q555 8-729-306-92 s 2SD669A\*(29)

Q556 8-729-304-92 s 2SB649A\*(29)  
 Q557 8-729-306-92 s 2SD669A\*(29)  
 Q558 8-729-304-92 s 2SB649A\*(29)  
 Q457 8-729-306-92 s 2SD669A\*(29)  
 Q458 8-729-304-92 s 2SB649A\*(29)

Q459 8-729-905-53 s 2SD1055-R  
 Q460 8-729-982-22 s 2SB822  
 Q555 8-729-306-92 s 2SD669A\*(29)  
 Q556 8-729-304-92 s 2SB649A\*(29)  
 Q557 8-729-306-92 s 2SD669A\*(29)

Q558 8-729-304-92 s 2SB649A\*(29)  
 Q655 8-729-306-92 s 2SD669A\*(29)  
 Q656 8-729-304-92 s 2SB649A\*(29)  
 Q657 8-729-306-92 s 2SD669A\*(29)  
 Q658 8-729-304-92 s 2SB649A\*(29)

Ref.No. Parts No. SP Description

Q659 8-729-905-53 s 2SD1055-R  
 Q660 8-729-982-22 s 2SB822

R39 1-247-887-00 s CARBON 220k 5% 1/4W  
 R40 1-247-887-00 s CARBON 220k 5% 1/4W  
 R41 1-247-887-00 s CARBON 220k 5% 1/4W  
 R42 1-247-887-00 s CARBON 220k 5% 1/4W  
 R43 1-247-887-00 s CARBON 220k 5% 1/4W

R44 1-247-887-00 s CARBON 220k 5% 1/4W  
 R48 1-247-887-00 s CARBON 220k 5% 1/4W  
 R49 1-247-887-00 s CARBON 220k 5% 1/4W  
 R53 1-247-887-00 s CARBON 220k 5% 1/4W  
 R54 1-247-887-00 s CARBON 220k 5% 1/4W

R55 1-247-887-00 s CARBON 220k 5% 1/4W  
 R57 1-247-887-00 s CARBON 220k 5% 1/4W  
 R58 1-247-887-00 s CARBON 220k 5% 1/4W  
 R68 1-247-887-00 s CARBON 220k 5% 1/4W  
 R173 1-247-731-11 s CARBON 22 5% 1/2W

R174 1-247-731-11 s CARBON 22 5% 1/2W  
 R175 1-247-731-11 s CARBON 22 5% 1/2W  
 R176 1-247-731-11 s CARBON 22 5% 1/2W  
 R177 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R179 1-249-455-11 s CARBON 4.7 5% 1/4W

R273 1-247-731-11 s CARBON 22 5% 1/2W  
 R274 1-247-731-11 s CARBON 22 5% 1/2W  
 R275 1-247-731-11 s CARBON 22 5% 1/2W  
 R276 1-247-731-11 s CARBON 22 5% 1/2W  
 R277 1-249-455-11 s CARBON 4.7 5% 1/4W

R279 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R284 1-247-745-11 s CARBON 330 5% 1/2W  
 R285 1-247-745-11 s CARBON 330 5% 1/2W  
 R373 1-247-731-11 s CARBON 22 5% 1/2W  
 R374 1-247-731-11 s CARBON 22 5% 1/2W

R375 1-247-731-11 s CARBON 22 5% 1/2W  
 R376 1-247-731-11 s CARBON 22 5% 1/2W  
 R377 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R379 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R473 1-247-731-11 s CARBON 22 5% 1/2W

R474 1-247-731-11 s CARBON 22 5% 1/2W  
 R475 1-247-731-11 s CARBON 22 5% 1/2W  
 R476 1-247-731-11 s CARBON 22 5% 1/2W  
 R477 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R479 1-249-455-11 s CARBON 4.7 5% 1/4W

R484 1-247-745-11 s CARBON 330 5% 1/2W  
 R485 1-247-745-11 s CARBON 330 5% 1/2W  
 R573 1-247-731-11 s CARBON 22 5% 1/2W  
 R574 1-247-731-11 s CARBON 22 5% 1/2W  
 R575 1-247-731-11 s CARBON 22 5% 1/2W

R576 1-247-731-11 s CARBON 22 5% 1/2W  
 R577 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R579 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R673 1-247-731-11 s CARBON 22 5% 1/2W  
 R674 1-247-731-11 s CARBON 22 5% 1/2W

R675 1-247-731-11 s CARBON 22 5% 1/2W  
 R676 1-247-731-11 s CARBON 22 5% 1/2W  
 R677 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R679 1-249-455-11 s CARBON 4.7 5% 1/4W  
 R684 1-247-745-11 s CARBON 330 5% 1/2W

R685 1-247-745-11 s CARBON 330 5% 1/2W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
RV151	1-230-522-11	s	VAR, METAL GLAZE 4.7k
RV251	1-230-522-11	s	VAR, METAL GLAZE 4.7k
RV351	1-230-522-11	s	VAR, METAL GLAZE 4.7k
RV451	1-230-522-11	s	VAR, METAL GLAZE 4.7k
RV551	1-230-522-11	s	VAR, METAL GLAZE 4.7k
RV651	1-230-522-11	s	VAR, METAL GLAZE 4.7k

#### CP-113 BOARD

All the component parts on the CP-113 board are supplied together when you order the CP-111 board.

1-622-572-11 o PRINTED CIRCUIT BOARD, CP-113

CN1 1-566-099-11 o BOARD TO BOARD 15P

D51 8-719-101-23 s 1SS123  
D53 8-719-101-23 s 1SS123

IC51 8-759-745-64 s NJM4560M (JRC)

Q51 8-729-202-38 s 2SC3326N  
Q52 8-729-202-38 s 2SC3326N  
Q53 8-729-202-38 s 2SC3326N  
Q54 8-729-202-38 s 2SC3326N

R54 1-216-667-11 s METAL CHIP 4.7k 0.50Z 1/10W  
R56 1-216-667-11 s METAL CHIP 4.7k 0.50Z 1/10W  
R57 1-216-667-11 s METAL CHIP 4.7k 0.50Z 1/10W  
R58 1-216-667-11 s METAL CHIP 4.7k 0.50Z 1/10W  
R60 1-216-679-11 s METAL CHIP 15k 0.50Z 1/10W

R62 1-216-679-11 s METAL CHIP 15k 0.50Z 1/10W  
R78 1-216-679-11 s METAL CHIP 15k 0.50Z 1/10W  
R81 1-216-631-11 s METAL CHIP 150 0.50Z 1/10W  
R82 1-216-679-11 s METAL CHIP 15k 0.50Z 1/10W

#### CP-161A BOARD

A-6713-420-A o MOUNTED CIRCUIT BOARD, CP-161A

C1 1-126-103-11 s ELECT 470 20Z 16V  
C101 1-126-396-11 s ELECT CHIP 47 20Z 16V  
C106 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C107 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C108 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C109 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C110 1-126-103-11 s ELECT 470 20Z 16V  
C111 1-126-103-11 s ELECT 470 20Z 16V  
C201 1-126-396-11 s ELECT CHIP 47 20Z 16V  
C206 1-126-394-11 s ELECT CHIP 10 20Z 16V

C207 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C208 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C209 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C210 1-126-103-11 s ELECT 470 20Z 16V  
C211 1-126-103-11 s ELECT 470 20Z 16V  
C301 1-126-396-11 s ELECT CHIP 47 20Z 16V  
C306 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C307 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C308 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C309 1-126-394-11 s ELECT CHIP 10 20Z 16V

C310 1-126-103-11 s ELECT 470 20Z 16V  
C311 1-126-103-11 s ELECT 470 20Z 16V  
C401 1-126-396-11 s ELECT CHIP 47 20Z 16V  
C406 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C407 1-126-394-11 s ELECT CHIP 10 20Z 16V

C408 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C409 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C410 1-126-103-11 s ELECT 470 20Z 16V  
C411 1-126-103-11 s ELECT 470 20Z 16V  
C501 1-126-396-11 s ELECT CHIP 47 20Z 16V

C506 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C507 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C508 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C509 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C510 1-126-103-11 s ELECT 470 20Z 16V

C511 1-126-103-11 s ELECT 470 20Z 16V  
C601 1-126-396-11 s ELECT CHIP 47 20Z 16V  
C606 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C607 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C608 1-126-394-11 s ELECT CHIP 10 20Z 16V

C609 1-126-394-11 s ELECT CHIP 10 20Z 16V  
C610 1-126-103-11 s ELECT 470 20Z 16V  
C611 1-126-103-11 s ELECT 470 20Z 16V  
C701 1-126-396-11 s ELECT CHIP 47 20Z 16V  
C702 1-126-396-11 s ELECT CHIP 47 20Z 16V

C706 1-124-234-00 s ELECT 22 20Z 16V  
C708 1-124-234-00 s ELECT 22 20Z 16V  
C711 1-126-103-11 s ELECT 470 20Z 16V  
C712 1-126-103-11 s ELECT 470 20Z 16V  
C716 1-126-096-11 s ELECT 10 20Z 35V

C801 1-126-103-11 s ELECT 470 20Z 16V  
C802 1-126-103-11 s ELECT 470 20Z 16V  
C804 1-126-103-11 s ELECT 470 20Z 16V  
C806 1-126-103-11 s ELECT 470 20Z 16V  
C809 1-126-103-11 s ELECT 470 20Z 16V

C810 1-126-103-11 s ELECT 470 20Z 16V  
C813 1-126-103-11 s ELECT 470 20Z 16V  
C814 1-126-103-11 s ELECT 470 20Z 16V  
C817 1-126-103-11 s ELECT 470 20Z 16V  
C818 1-126-103-11 s ELECT 470 20Z 16V

C821 1-126-103-11 s ELECT 470 20Z 16V  
C822 1-126-103-11 s ELECT 470 20Z 16V

CN407 1-506-470-11 s 5P, MALE  
CN408 1-506-473-11 s 8P, MALE  
CN409 1-506-469-11 s 4P, MALE  
CN410 1-506-471-11 s 6P, MALE  
CN411 1-506-469-11 s 4P, MALE  
CN412 1-506-471-11 s 6P, MALE  
CN413 1-506-468-11 s 3P, MALE  
CN414 1-506-469-11 s 4P, MALE  
CN415 1-506-470-11 s 5P, MALE

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

D1	8-719-200-02	s	10E2
D2	8-719-200-02	s	10E2
D101	8-719-800-76	s	1SS226
D102	8-719-800-76	s	1SS226
D103	8-719-800-76	s	1SS226
D104	8-719-800-76	s	1SS226
D105	8-719-104-34	s	1S2835
D106	8-719-104-34	s	1S2835
D107	8-719-104-34	s	1S2835
D108	8-719-104-34	s	1S2835
D201	8-719-800-76	s	1SS226
D202	8-719-800-76	s	1SS226
D203	8-719-800-76	s	1SS226
D204	8-719-800-76	s	1SS226
D205	8-719-104-34	s	1S2835
D206	8-719-104-34	s	1S2835
D207	8-719-104-34	s	1S2835
D208	8-719-104-34	s	1S2835
D301	8-719-800-76	s	1SS226
D302	8-719-800-76	s	1SS226
D303	8-719-800-76	s	1SS226
D304	8-719-800-76	s	1SS226
D305	8-719-104-34	s	1S2835
D306	8-719-104-34	s	1S2835
D307	8-719-104-34	s	1S2835
D308	8-719-104-34	s	1S2835
D401	8-719-800-76	s	1SS226
D402	8-719-800-76	s	1SS226
D403	8-719-800-76	s	1SS226
D404	8-719-800-76	s	1SS226
D405	8-719-104-34	s	1S2835
D406	8-719-104-34	s	1S2835
D407	8-719-104-34	s	1S2835
D408	8-719-104-34	s	1S2835
D501	8-719-800-76	s	1SS226
D502	8-719-800-76	s	1SS226
D503	8-719-800-76	s	1SS226
D504	8-719-800-76	s	1SS226
D505	8-719-104-34	s	1S2835
D506	8-719-104-34	s	1S2835
D507	8-719-104-34	s	1S2835
D508	8-719-104-34	s	1S2835
D601	8-719-800-76	s	1SS226
D602	8-719-800-76	s	1SS226
D603	8-719-800-76	s	1SS226
D604	8-719-800-76	s	1SS226
D605	8-719-104-34	s	1S2835
D606	8-719-104-34	s	1S2835
D607	8-719-104-34	s	1S2835
D608	8-719-104-34	s	1S2835
D701	8-719-400-18	s	MA1 52WK
D702	8-719-400-18	s	MA1 52WK
D703	8-719-800-76	s	1SS226
D704	8-719-800-76	s	1SS226
D705	8-719-800-76	s	1SS226
D706	8-719-800-76	s	1SS226
D707	8-719-800-76	s	1SS226
D708	8-719-800-76	s	1SS226
D709	8-719-400-18	s	MA1 52WK
D710	8-719-400-18	s	MA1 52WK
D711	8-719-400-18	s	MA1 52WK
D712	8-719-400-18	s	MA1 52WK

Ref.No. Parts No. SP Description

IC101	8-759-109-70	s	UPC4560G2
IC102	8-759-109-70	s	UPC4560G2
IC201	8-759-109-70	s	UPC4560G2
IC202	8-759-109-70	s	UPC4560G2
IC301	8-759-109-70	s	UPC4560G2
IC302	8-759-109-70	s	UPC4560G2
IC401	8-759-109-70	s	UPC4560G2
IC402	8-759-109-70	s	UPC4560G2
IC501	8-759-109-70	s	UPC4560G2
IC502	8-759-109-70	s	UPC4560G2
IC602	8-759-109-70	s	UPC4560G2
IC701	8-759-109-70	s	UPC4560G2
IC702	8-759-109-70	s	UPC4560G2
IC703	8-759-109-70	s	UPC4560G2
IC704	8-759-109-70	s	UPC4560G2
IC705	8-759-109-70	s	UPC4560G2
IC706	8-759-109-70	s	UPC4560G2
IC707	8-759-109-70	s	UPC4560G2
IC708	8-759-109-70	s	UPC4560G2
IC709	8-759-109-70	s	UPC4560G2
IC710	8-759-109-70	s	UPC4560G2
IC711	8-759-109-70	s	UPC4560G2
IC712	8-759-008-85	s	MC14016BF
IC713	8-759-008-85	s	MC14016BF
IC715	8-759-008-85	s	MC14016BF
IC716	8-759-008-85	s	MC14016BF
IC717	8-759-982-23	s	TA78L008AP
IC718	8-759-982-46	s	RC79L08A
Q1	8-729-216-22	s	2SA1162
Q51	8-766-001-49	s	TX429M
Q52	8-729-901-01	s	DTC144EK
Q53	8-729-901-06	s	DTA144EK
Q101	8-729-202-38	s	2SC3326N
Q102	8-729-202-38	s	2SC3326N
Q103	8-729-202-38	s	2SC3326N
Q104	8-729-202-38	s	2SC3326N
Q105	8-729-180-93	s	2SD809
Q106	8-729-173-13	s	2SB731
Q107	8-729-180-93	s	2SD809
Q108	8-729-173-13	s	2SB731
Q109	8-729-271-22	s	2SC2712-G
Q110	8-729-216-22	s	2SA1162
Q111	8-729-271-22	s	2SC2712-G
Q112	8-729-216-22	s	2SA1162
Q201	8-729-202-38	s	2SC3326N
Q202	8-729-202-38	s	2SC3326N
Q203	8-729-202-38	s	2SC3326N
Q204	8-729-202-38	s	2SC3326N
Q205	8-729-180-93	s	2SD809
Q206	8-729-173-13	s	2SB731
Q207	8-729-180-93	s	2SD809
Q208	8-729-173-13	s	2SB731
Q209	8-729-271-22	s	2SC2712-G
Q210	8-729-216-22	s	2SA1162
Q211	8-729-271-22	s	2SC2712-G
Q212	8-729-216-22	s	2SA1162
Q301	8-729-202-38	s	2SC3326N
Q302	8-729-202-38	s	2SC3326N

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".



Ref.No. Parts No. SP Description

Q303 8-729-202-38 s 2SC3326N  
Q304 8-729-202-38 s 2SC3326N  
Q305 8-729-180-93 s 2SD809  
Q306 8-729-173-13 s 2SB731  
Q307 8-729-180-93 s 2SD809

Q308 8-729-173-13 s 2SB731  
Q309 8-729-271-22 s 2SC2712-G  
Q310 8-729-216-22 s 2SA1162  
Q311 8-729-271-22 s 2SC2712-G  
Q312 8-729-216-22 s 2SA1162

Q401 8-729-202-38 s 2SC3326N  
Q402 8-729-202-38 s 2SC3326N  
Q403 8-729-202-38 s 2SC3326N  
Q404 8-729-202-38 s 2SC3326N  
Q405 8-729-180-93 s 2SD809

Q406 8-729-173-13 s 2SB731  
Q407 8-729-180-93 s 2SD809  
Q408 8-729-173-13 s 2SB731  
Q409 8-729-271-22 s 2SC2712-G  
Q410 8-729-216-22 s 2SA1162

Q411 8-729-271-22 s 2SC2712-G  
Q412 8-729-216-22 s 2SA1162  
Q501 8-729-202-38 s 2SC3326N  
Q502 8-729-202-38 s 2SC3326N  
Q503 8-729-202-38 s 2SC3326N

Q504 8-729-202-38 s 2SC3326N  
Q505 8-729-180-93 s 2SD809  
Q506 8-729-173-13 s 2SB731  
Q507 8-729-180-93 s 2SD809  
Q508 8-729-173-13 s 2SB731

Q509 8-729-271-22 s 2SC2712-G  
Q510 8-729-216-22 s 2SA1162  
Q511 8-729-271-22 s 2SC2712-G  
Q512 8-729-216-22 s 2SA1162  
Q601 8-729-202-38 s 2SC3326N

Q602 8-729-202-38 s 2SC3326N  
Q603 8-729-202-38 s 2SC3326N  
Q604 8-729-202-38 s 2SC3326N  
Q605 8-729-180-93 s 2SD809  
Q606 8-729-173-13 s 2SB731

Q607 8-729-180-93 s 2SD809  
Q608 8-729-173-13 s 2SB731  
Q609 8-729-271-22 s 2SC2712-G  
Q610 8-729-216-22 s 2SA1162  
Q611 8-729-271-22 s 2SC2712-G

Q612 8-729-216-22 s 2SA1162  
Q701 8-729-901-01 s DTC144EK  
Q702 8-729-901-06 s DTA144EK  
Q703 8-729-901-01 s DTC144EK  
Q704 8-729-901-06 s DTA144EK

Q705 8-729-901-01 s DTC144EK  
Q706 8-729-901-06 s DTA144EK  
Q707 8-729-901-01 s DTC144EK  
Q708 8-729-901-06 s DTA144EK  
Q709 8-729-901-06 s DTA144EK

Q710 8-729-901-01 s DTC144EK  
Q711 8-729-901-06 s DTA144EK  
Q712 8-729-901-01 s DTC144EK  
Q713 8-729-208-87 s 2SJ106-Y  
Q714 8-729-205-38 s 2SK208-Y

Q715 8-729-205-38 s 2SK208-Y  
Q716 8-729-208-87 s 2SJ106-Y  
Q717 8-729-901-06 s DTA144EK  
Q718 8-729-901-01 s DTC144EK  
Q719 8-729-202-38 s 2SC3326N

Ref.No. Parts No. SP Description

Q720 8-729-901-01 s DTC144EK  
Q721 8-729-901-01 s DTC144EK  
Q722 8-729-901-01 s DTC144EK  
Q723 8-729-216-22 s 2SA1162  
Q724 8-729-216-22 s 2SA1162

Q725 8-729-202-38 s 2SC3326N  
Q726 8-729-202-38 s 2SC3326N  
Q801 8-729-905-53 s 2SD1055-R  
Q802 8-729-205-95 s 2SB822-R  
Q803 8-729-905-53 s 2SD1055-R

Q804 8-729-205-95 s 2SB822-R  
Q805 8-729-905-53 s 2SD1055-R  
Q806 8-729-205-95 s 2SB822-R

R101 1-216-660-11 s METAL CHIP 2.4k 0.5% 1/10W  
R102 1-216-628-11 s METAL CHIP 110 0.5% 1/10W  
R103 1-216-654-11 s METAL CHIP 1.3k 0.5% 1/10W  
R104 1-216-662-11 s METAL CHIP 3k 0.5% 1/10W  
R105 1-216-659-11 s METAL CHIP 2.2k 0.5% 1/10W

R106 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R107 1-216-661-11 s METAL CHIP 2.7k 0.5% 1/10W  
R109 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R110 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R111 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W

R112 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R114 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R116 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R131 1-249-389-11 s CARBON 4.7 5% 1/4W  
R132 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W

R133 1-249-389-11 s CARBON 4.7 5% 1/4W  
R135 1-216-631-11 s METAL CHIP 150 0.5% 1/10W  
R136 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R138 1-216-631-11 s METAL CHIP 150 0.5% 1/10W  
R201 1-216-660-11 s METAL CHIP 2.4k 0.5% 1/10W

R202 1-216-628-11 s METAL CHIP 110 0.5% 1/10W  
R203 1-216-654-11 s METAL CHIP 1.3k 0.5% 1/10W  
R204 1-216-662-11 s METAL CHIP 3k 0.5% 1/10W  
R205 1-216-659-11 s METAL CHIP 2.2k 0.5% 1/10W  
R206 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W

R207 1-216-661-11 s METAL CHIP 2.7k 0.5% 1/10W  
R209 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R210 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R211 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R212 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W

R214 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R216 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R231 1-249-389-11 s CARBON 4.7 5% 1/4W  
R232 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R233 1-249-389-11 s CARBON 4.7 5% 1/4W

R235 1-216-631-11 s METAL CHIP 150 0.5% 1/10W  
R236 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R238 1-216-631-11 s METAL CHIP 150 0.5% 1/10W  
R301 1-216-660-11 s METAL CHIP 2.4k 0.5% 1/10W  
R302 1-216-628-11 s METAL CHIP 110 0.5% 1/10W

R303 1-216-654-11 s METAL CHIP 1.3k 0.5% 1/10W  
R304 1-216-662-11 s METAL CHIP 3k 0.5% 1/10W  
R305 1-216-659-11 s METAL CHIP 2.2k 0.5% 1/10W  
R306 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W  
R307 1-216-661-11 s METAL CHIP 2.7k 0.5% 1/10W

R309 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R310 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R311 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R312 1-216-667-11 s METAL CHIP 4.7k 0.5% 1/10W  
R314 1-216-679-11 s METAL CHIP 15k 0.5% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
R316	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R331	1-249-389-11	s	CARBON 4.7 5% 1/4W
R332	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R333	1-249-389-11	s	CARBON 4.7 5% 1/4W
R335	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R336	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R338	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R401	1-216-660-11	s	METAL CHIP 2.4k 0.5% 1/10W
R402	1-216-628-11	s	METAL CHIP 110 0.5% 1/10W
R403	1-216-654-11	s	METAL CHIP 1.3k 0.5% 1/10W
R404	1-216-662-11	s	METAL CHIP 3k 0.5% 1/10W
R405	1-216-659-11	s	METAL CHIP 2.2k 0.5% 1/10W
R406	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R407	1-216-661-11	s	METAL CHIP 2.7k 0.5% 1/10W
R409	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R410	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R411	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R412	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R414	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R416	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R431	1-249-389-11	s	CARBON 4.7 5% 1/4W
R432	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R433	1-249-389-11	s	CARBON 4.7 5% 1/4W
R435	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R436	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R438	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R501	1-216-660-11	s	METAL CHIP 2.4k 0.5% 1/10W
R502	1-216-628-11	s	METAL CHIP 110 0.5% 1/10W
R503	1-216-654-11	s	METAL CHIP 1.3k 0.5% 1/10W
R504	1-216-662-11	s	METAL CHIP 3k 0.5% 1/10W
R505	1-216-659-11	s	METAL CHIP 2.2k 0.5% 1/10W
R506	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R507	1-216-661-11	s	METAL CHIP 2.7k 0.5% 1/10W
R509	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R510	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R511	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R512	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R514	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R516	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R531	1-249-389-11	s	CARBON 4.7 5% 1/4W
R532	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R533	1-249-389-11	s	CARBON 4.7 5% 1/4W
R535	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R536	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R538	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R601	1-216-660-11	s	METAL CHIP 2.4k 0.5% 1/10W
R602	1-216-628-11	s	METAL CHIP 110 0.5% 1/10W
R603	1-216-654-11	s	METAL CHIP 1.3k 0.5% 1/10W
R604	1-216-662-11	s	METAL CHIP 3k 0.5% 1/10W
R605	1-216-659-11	s	METAL CHIP 2.2k 0.5% 1/10W
R606	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R607	1-216-661-11	s	METAL CHIP 2.7k 0.5% 1/10W
R609	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R610	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R611	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R612	1-216-667-11	s	METAL CHIP 4.7k 0.5% 1/10W
R614	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R616	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R631	1-249-389-11	s	CARBON 4.7 5% 1/4W
R632	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R633	1-249-389-11	s	CARBON 4.7 5% 1/4W
R635	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R636	1-216-679-11	s	METAL CHIP 15k 0.5% 1/10W
R638	1-216-631-11	s	METAL CHIP 150 0.5% 1/10W
R739	1-216-121-00	s	METAL CHIP 1M 5% 1/10W

Ref.No.	Parts No.	SP	Description
R740	1-216-121-00	s	METAL CHIP 1M 5% 1/10W
R744	1-216-121-00	s	METAL CHIP 1M 5% 1/10W
R745	1-216-121-00	s	METAL CHIP 1M 5% 1/10W
R747	1-216-659-11	s	METAL CHIP 2.2k 0.5% 1/10W
R750	1-216-659-11	s	METAL CHIP 2.2k 0.5% 1/10W
R752	1-216-659-11	s	METAL CHIP 2.2k 0.5% 1/10W
R801	1-249-411-11	s	CARBON 330 5% 1/4W
R802	1-249-411-11	s	CARBON 330 5% 1/4W
R803	1-249-411-11	s	CARBON 330 5% 1/4W
R804	1-249-411-11	s	CARBON 330 5% 1/4W
R805	1-249-411-11	s	CARBON 330 5% 1/4W
R806	1-249-411-11	s	CARBON 330 5% 1/4W
RV101	1-230-522-11	s	VAR, METAL 4.7k
RV201	1-230-522-11	s	VAR, METAL 4.7k
RV301	1-230-522-11	s	VAR, METAL 4.7k
RV401	1-230-522-11	s	VAR, METAL 4.7k
RV501	1-230-522-11	s	VAR, METAL 4.7k
RV601	1-230-522-11	s	VAR, METAL 4.7k

DE-15 BOARD

1-622-606-12 o PRINTED CIRCUIT BOARD, DE-15

1-559-266-11 o FLAT CABLE

DME 1-807-683-11 s RESISTOR ELEMENT

14) DEC-39A BOARD

A-6711-942-A o MOUNTED CIRCUIT BOARD, DEC-39A

C410	1-124-462-00	s	ELECT	10	20%	16V
C853	1-123-661-00	s	ELECT	100	20%	6.3V
C855	1-123-661-00	s	ELECT	100	20%	6.3V
C873	1-163-100-00	s	CERMIC CHIP	20pF	5%	50V

- 3) CN105 1-506-748-31 s DIN 96P  
 4) CN105 1-506-748-11 s DIN 96P

D403 8-719-100-05 s 1S2837

IC403	8-759-700-20	s	NJM79M05A (JRC)
IC851	8-759-941-27	s	MB4002PF (FUJITSU)
IC852	8-759-941-27	s	MB4002PF (FUJITSU)
IC853	8-759-971-01	s	SN74HC08NS (TI)

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

L400 1-459-155-00 s 45 (WITH CORE)  
 L401 1-459-155-00 s 45 (WITH CORE)  
 L402 1-459-155-00 s 45 (WITH CORE)  
 L851 1-410-482-31 s MICRO 100  
 L852 1-410-482-31 s MICRO 100

L853 1-410-482-31 s MICRO 100  
 L854 1-410-482-31 s MICRO 100

Q851 8-729-200-85 s 2SC2714-R  
 Q852 8-729-200-85 s 2SC2714-R  
 Q853 8-729-200-85 s 2SC2714-R

R855 1-216-637-11 s METAL CHIP 270 0.50% 1/10W  
 R856 1-216-658-11 s METAL CHIP 2k 0.50% 1/10W  
 R857 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
 R858 1-216-682-11 s METAL CHIP 20k 0.50% 1/10W  
 R859 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W

R862 1-216-663-11 s METAL CHIP 3.3k 0.50% 1/10W  
 R863 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
 R865 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W

RV851 1-237-515-21 s VAR, CERMET 1k  
 RV852 1-237-515-21 s VAR, CERMET 1k

## 15) DEC-46AP BOARD

A-6727-076-A o MOUNTED CIRCUIT BOARD, DEC-46AP

C48 1-126-103-11 s ELECT 47 20% 16V  
 C49 1-126-103-11 s ELECT 47 20% 16V  
 C50 1-126-103-11 s ELECT 47 20% 16V  
 C58 1-126-157-11 s ELECT 10 20% 16V  
 C201 1-123-661-00 s ELECT 100 20% 6.3V

C203 1-124-589-11 s ELECT 47 20% 16V  
 C205 1-123-661-00 s ELECT 100 20% 6.3V  
 C208 1-163-100-00 s CERAMIC CHIP 20pF 5% 50V  
 C209 1-126-157-11 s ELECT 10 20% 16V  
 C211 1-124-589-11 s ELECT 47 20% 16V

CN105 1-506-748-11 s DIN 96P

D4 8-719-100-05 s 1S2837

IC11 8-759-982-52 s RC79M05FA (RAYTHEON)  
 IC201 8-759-941-27 s MB4002PF (FUJITSU)  
 IC202 8-759-941-27 s MB4002PF (FUJITSU)  
 IC203 8-759-204-98 s SN74HC08NS (TI)

L11 1-459-155-00 s 45 (WITH CORE)  
 L12 1-459-155-00 s 45 (WITH CORE)  
 L13 1-459-155-00 s 45 (WITH CORE)  
 L201 1-410-482-31 s MICRO 100  
 L202 1-410-482-31 s MICRO 100

Ref.No. Parts No. SP Description

L203 1-410-482-31 s MICRO 100  
 L204 1-410-482-31 s MICRO 100

Q201 8-729-201-26 s 2SC2715  
 Q202 8-729-201-26 s 2SC2715  
 Q203 8-729-201-26 s 2SC2715

R205 1-216-637-11 s METAL CHIP 270 0.50% 1/10W  
 R206 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
 R207 1-216-658-11 s METAL CHIP 2k 0.50% 1/10W  
 R208 1-216-682-11 s METAL CHIP 20k 0.50% 1/10W  
 R209 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W

R212 1-216-663-11 s METAL CHIP 3.3k 0.50% 1/10W  
 R213 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
 R215 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
 R216 1-216-644-11 s METAL CHIP 510 0.50% 1/10W  
 R217 1-216-644-11 s METAL CHIP 510 0.50% 1/10W

RV201 1-237-514-21 s VAR, CERMET 500  
 RV202 1-237-514-21 s VAR, CERMET 500

## DM-56P BOARD

3) This board includes the DUS-259 and DUS-269 boards.

4) This board includes the DUS-259, DUS-269, DUS-288, EQ-26, and EQ-28 boards.

A-6711-904-B o MOUNTED CIRCUIT BOARD, DM-56P

C33 1-107-163-00 s MICA 47pF 5% 500V  
 C312 1-107-339-11 s MICA 630.8pF 0.25% 10V  
 C342 1-163-111-00 s CERAMIC CHIP 56pF 5% 50V  
 11) C350 1-107-168-00 s MICA 91pF 5% 500V  
 C351 1-107-049-00 s MICA 8.2pF 0.50pF 500V

C431 1-135-096-21 s TANTAL CHIP 4.7 10% 10V  
 C432 1-135-093-21 s TANTAL CHIP 10 10% 10V  
 C436 1-135-093-21 s TANTAL CHIP 10 10% 10V  
 C501 1-163-103-00 s CERAMIC CHIP 27pF 5% 50V  
 C512 1-163-103-00 s CERAMIC CHIP 27pF 5% 50V

C528 1-162-716-11 s CERAMIC 180pF 1% 50V  
 C529 1-162-728-11 s CERAMIC 560pF 1% 50V  
 C714 1-107-340-11 s MICA 651.2pF 0.25% 100V  
 C917 1-124-471-00 s ELECT 1000 20% 6.3V  
 C918 1-126-103-11 s ELECT 470 20% 16V

C920 1-124-471-00 s ELECT 1000 20% 6.3V  
 C921 1-124-471-00 s ELECT 1000 20% 6.3V  
 C927 1-124-224-00 s ELECT 47 20% 6.3V  
 C928 1-124-471-00 s ELECT 1000 20% 6.3V  
 C929 1-126-103-11 s ELECT 470 20% 16V

C933 1-124-224-00 s ELECT 47 20% 6.3V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description	Ref.No.	Parts No.	SP	Description
19)	CN1	1-566-473-11	o PIN, SOCKET 1P	IC6	8-729-801-45	s	2SC3064-E
19)	CN2	1-566-473-11	o PIN, SOCKET 1P	IC101	8-766-001-49	s	TX429M
19)	CN3	1-566-473-11	o PIN, SOCKET 1P	IC102	8-759-969-13	s	SN16913P (TI)
19)	CN4	1-566-473-11	o PIN, SOCKET 1P	IC103	8-759-700-43	s	NJM4558M (JRC)
	CN110	1-506-746-11	s DIN 48P	IC104	1-464-602-31	s	CIRCUIT UNIT, HF
3)	CN111	1-506-748-31	s DIN 96P	IC105	8-752-006-12	s	CX20061 (SONY)
4)	CN111	1-506-748-11	s DIN 96P	IC201	8-759-700-95	s	NJM1496M (JRC)
	CN1001	1-554-788-11	o PIN 5P	IC202	8-759-908-17	s	TL082CPS (TI)
				IC203	8-759-951-09	s	SN75107ANS (TI)
				IC204	8-759-908-17	s	TL082CPS (TI)
CV347	1-141-298-11	s	TRIMMER, CERAMIC	IC205	8-759-208-11	s	TC4053BFHB (TOSHIBA)
				14) IC207	8-741-109-80	s	BX1098 (SONY)
D101	8-719-109-94	s	RD6.2ES-B3	15) IC207	8-749-920-42	s	BX1098L (SONY)
D102	8-719-911-19	s	1SS119	IC301	8-759-012-00	s	MC10H116M (MOTOROLA)
D201	8-719-101-23	s	1SS123	IC302	8-759-001-98	s	MC10198L (MOTOROLA)
D202	8-719-101-23	s	1SS123				
D301	8-719-109-85	s	RD5.1ES-B2	IC303	8-752-015-81	s	CX20158 (SONY)
				IC304	8-752-015-81	s	CX20158 (SONY)
D302	8-719-101-23	s	1SS123	IC305	8-759-112-53	s	uPC1663G (NEC)
D303	8-719-101-23	s	1SS123	IC306	8-752-006-10	s	CX20061 (SONY)
D304	8-719-109-94	s	RD6.2ES-B3	IC403	8-752-015-81	s	CX20158 (SONY)
D305	8-719-109-94	s	RD6.2ES-B3				
D401	8-719-101-23	s	1SS123	IC401	8-752-030-80	s	CXA1039M (SONY)
				IC402	8-741-154-01	s	SBX1540-31 (SONY)
D500	8-719-109-44	s	1SS99-1	IC501	8-752-015-81	s	CX20158 (SONY)
D601	8-719-101-23	s	1SS123	IC502	8-759-112-53	s	uPC1663G (NEC)
D701	8-719-109-85	s	RD5.1ES-B2	IC503	8-752-015-81	s	CX20158 (SONY)
D702	8-719-101-23	s	1SS123				
D703	8-719-109-94	s	RD6.2ES-B3	IC504	8-759-112-53	s	uPC1663G (NEC)
				IC505	8-752-015-81	s	CX20158 (SONY)
D704	8-719-109-94	s	RD6.2ES-B3	IC506	8-729-801-45	s	2SC3064-E
D801	8-719-101-23	s	1SS123	IC507	8-759-969-13	s	SN16913P (TI)
D802	8-719-101-23	s	1SS123	IC508	8-759-700-43	s	NJM4558M (JRC)
D901	8-719-101-23	s	1SS123				
D902	8-719-101-23	s	1SS123	IC509	8-766-001-49	s	TX429M
				IC601	8-759-700-95	s	NJM1496M (JRC)
DL1	1-415-154-00	s	35ns	IC602	8-759-908-17	s	TL082CPS (TI)
DL501	1-415-162-21	s	50ns	IC603	8-759-951-09	s	SN75107ANS (TI)
				IC604	1-464-602-21	s	CIRCUIT UNIT, HF
FB301	1-535-178-00	s	FERRITE BEAD	IC605	8-752-006-10	s	CX20061 (SONY)
FB509	1-535-178-00	s	FERRITE BEAD	IC701	8-759-012-00	s	MC10H116M (MOTOROLA)
FB701	1-535-178-00	s	FERRITE BEAD	IC702	8-759-001-98	s	MC10198L (MOTOROLA)
FB901	1-535-178-00	s	FERRITE BEAD	IC703	8-759-112-53	s	uPC1663G (NEC)
FB902	1-535-178-00	s	FERRITE BEAD	IC704	8-752-015-81	s	CX20158 (SONY)
FB903	1-535-178-00	s	FERRITE BEAD	IC801	8-741-154-00	s	SBX1540-21 (SONY)
FB904	1-535-178-00	s	FERRITE BEAD	IC802	8-752-015-81	s	CX20158 (SONY)
				IC901	8-759-205-39	s	TC74HC4049F (TOSHIBA)
FL301	1-236-092-12	s	LOW-PASS 5.5MHz	IC902	8-759-205-39	s	TC74HC4049F (TOSHIBA)
FL302	1-236-024-11	s	LOW-PASS 4.0MHz	IC903	8-759-204-98	s	TC74HC08F (TOSHIBA)
FL303	1-235-321-11	s	LOW-PASS 1.5MHz	IC904	8-759-204-98	s	TC74HC08F (TOSHIBA)
FL304	1-235-546-11	s	BAND ELIMINATE 4.43MHz	IC905	8-759-205-40	s	TC74HC4050F (TOSHIBA)
FL701	1-236-185-11	s	LOW-PASS 4MHz/3MHz	IC906	8-759-204-98	s	TC74HC08F (TOSHIBA)
				IC907	8-759-941-17	s	SN74LS06NS (TI)
IC1	8-752-015-81	s	CX20158 (SONY)	IC908	8-759-982-10	s	RC7809FA (RAYTHEON)
IC2	8-752-015-81	s	CX20158 (SONY)	IC909	8-759-982-05	s	RC7805FA (RAYTHEON)
IC3	8-759-112-53	s	uPC1663G (NEC)				
IC4	8-759-112-53	s	uPC1663G (NEC)	L1	1-410-470-11	s	MICRO 10
IC5	8-752-015-81	s	CX20158 (SONY)	L2	1-410-482-31	s	MICRO 100
				L3	1-410-470-11	s	MICRO 100
				L4	1-410-482-31	s	MICRO 100
				L5	1-410-482-31	s	MICRO 100
				L6	1-410-470-11	s	MICRO 100
				L7	1-410-482-31	s	MICRO 100
				L8	1-410-482-31	s	MICRO 100
				L10	1-410-482-31	s	MICRO 100
				L11	1-410-466-21	s	MICRO 4.7

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Ref.No. Parts No. SP Description

L101	1-410-482-31	s	MICRO 100
L102	1-410-482-31	s	MICRO 100
L103	1-410-482-31	s	MICRO 100
L105	1-410-470-11	s	MICRO 10
L106	1-410-470-11	s	MICRO 10
L107	1-410-464-11	s	MICRO 3.3
L109	1-410-473-11	s	MICRO 18
L111	1-410-482-31	s	MICRO 100
L201	1-410-482-31	s	MICRO 100
L203	1-410-482-31	s	MICRO 100
L204	1-410-482-31	s	MICRO 100
L205	1-410-482-31	s	MICRO 100
L206	1-410-482-31	s	MICRO 100
L301	1-410-482-11	s	MICRO 100
L303	1-410-482-31	s	MICRO 100
L304	1-410-482-31	s	MICRO 100
L305	1-410-482-31	s	MICRO 100
L307	1-410-482-31	s	MICRO 100
L308	1-410-482-31	s	MICRO 100
L309	1-410-482-31	s	MICRO 100
L310	1-410-482-31	s	MICRO 100
L311	1-410-478-11	s	MICRO 47
L312	1-410-482-31	s	MICRO 100
L401	1-410-482-31	s	MICRO 100
L402	1-410-482-31	s	MICRO 100
L403	1-410-482-31	s	MICRO 100
L404	1-410-466-41	s	MICRO 4.7
L406	1-410-461-41	s	MICRO 1.8
L407	1-410-482-31	s	MICRO 100
L408	1-410-478-11	s	MICRO 47
L409	1-410-482-31	s	MICRO 100
L410	1-410-482-31	s	MICRO 100
L501	1-410-482-31	s	MICRO 100
L502	1-410-482-31	s	MICRO 100
L503	1-410-482-31	s	MICRO 100
L504	1-410-482-31	s	MICRO 100
L506	1-410-482-31	s	MICRO 100
L509	1-410-482-31	s	MICRO 100
L510	1-410-482-31	s	MICRO 100
L511	1-410-482-31	s	MICRO 100
L601	1-410-482-31	s	MICRO 100
L602	1-410-468-11	s	MICRO 6.8
L603	1-410-482-31	s	MICRO 100
L604	1-410-482-31	s	MICRO 100
L605	1-410-482-31	s	MICRO 100
L606	1-410-482-31	s	MICRO 100
L607	1-410-468-31	s	MICRO 6.8
L608	1-410-471-11	s	MICRO 12
L609	1-410-482-31	s	MICRO 100
L701	1-410-482-31	s	MICRO 100
L703	1-410-482-31	s	MICRO 100
L705	1-410-482-31	s	MICRO 100
L801	1-410-482-31	s	MICRO 100
L802	1-410-482-31	s	MICRO 100
L803	1-410-482-31	s	MICRO 100
L805	1-410-482-31	s	MICRO 100
L806	1-410-482-31	s	MICRO 100
L901	1-410-482-31	s	MICRO 100
L902	1-459-155-00	s	45 (WITH CORE)
L903	1-459-155-00	s	45 (WITH CORE)
L904	1-459-155-00	s	45 (WITH CORE)
L905	1-459-155-00	s	45 (WITH CORE)
L906	1-459-155-00	s	45 (WITH CORE)

Ref.No. Parts No. SP Description

LV1	1-408-634-00	s	FIXED
Q1	8-729-101-25	s	2SC1009A
Q2	8-729-101-25	s	2SC1009A
Q3	8-729-101-25	s	2SC1009A
Q4	8-729-101-25	s	2SC1009A
Q5	8-729-101-25	s	2SC1009A
Q6	8-729-101-25	s	2SC1009A
4) Q7	8-729-900-53	s	DTC114EK
4) Q8	8-729-900-53	s	DTC114EK
Q9	8-729-101-25	s	2SC1009A
Q10	8-729-101-25	s	2SC1009A
Q11	8-729-101-25	s	2SC1009A
Q12	8-729-101-25	s	2SC1009A
Q13	8-729-101-25	s	2SC1009A
Q15	8-729-900-36	s	DTC124ES
Q16	8-729-101-25	s	2SC1009A
Q18	8-729-102-06	s	2SC2223
Q19	8-729-202-38	s	2SC3326N
Q20	8-729-122-63	s	2SA1226
Q21	8-729-202-38	s	2SC3326N
Q22	8-729-202-38	s	2SC3326N
Q23	8-729-202-38	s	2SC3326N
Q24	8-729-202-38	s	2SC3326N
Q25	8-729-101-25	s	2SC1009A
Q26	8-729-101-25	s	2SC1009A
Q27	8-729-101-25	s	2SC1009A
Q28	8-729-101-25	s	2SC1009A
Q101	8-729-101-25	s	2SC1009A
Q102	8-729-101-25	s	2SC1009A
Q103	8-729-101-25	s	2SC1009A
Q104	8-729-101-25	s	2SC1009A
Q105	8-729-101-25	s	2SC1009A
Q106	8-729-101-25	s	2SC1009A
Q107	8-729-101-25	s	2SC1009A
Q108	8-729-101-25	s	2SC1009A
Q109	8-729-101-25	s	2SC1009A
Q110	8-729-101-25	s	2SC1009A
Q111	8-729-101-25	s	2SC1009A
Q112	8-729-101-25	s	2SC1009A
Q113	8-729-101-25	s	2SC1009A
Q114	8-729-101-25	s	2SC1009A
Q115	8-729-101-25	s	2SC1009A
Q116	8-729-101-25	s	2SC1009A
Q117	8-729-102-06	s	2SC2223
Q118	8-729-102-06	s	2SC2223
Q119	8-729-102-06	s	2SC2223
Q201	8-729-101-25	s	2SC1009A
Q202	8-729-101-25	s	2SC1009A
Q203	8-729-101-25	s	2SC1009A
Q204	8-729-202-38	s	2SC3326N
Q205	8-729-202-38	s	2SC3326N
Q206	8-729-202-38	s	2SC3326N
Q207	8-729-202-38	s	2SC3326N
Q208	8-729-101-25	s	2SC1009A
Q301	8-729-122-63	s	2SA1226
Q302	8-729-122-63	s	2SA1226
Q303	8-729-102-06	s	2SC2223
Q304	8-729-101-25	s	2SC1009A
Q305	8-729-101-25	s	2SC1009A
Q306	8-729-101-25	s	2SC1009A
Q307	8-729-101-25	s	2SC1009A

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
Q308	8-729-101-25	s	2SC1009A
Q309	8-729-101-25	s	2SC1009A
Q310	8-729-101-25	s	2SC1009A
Q311	8-729-101-25	s	2SC1009A
Q312	8-729-101-25	s	2SC1009A
Q313	8-729-202-38	s	2SC3326N
Q314	8-729-102-06	s	2SC2223
Q315	8-729-101-25	s	2SC1009A
Q316	8-729-101-25	s	2SC1009A
Q317	8-729-101-25	s	2SC1009A
Q318	8-729-101-25	s	2SC1009A
Q402	8-729-109-44	s	2SK94
Q403	8-729-101-25	s	2SC1009A
Q414	8-729-101-25	s	2SC1009A
Q409	8-729-101-25	s	2SC1009A
Q410	8-729-101-25	s	2SC1009A
Q411	8-729-101-25	s	2SC1009A
Q412	8-729-101-25	s	2SC1009A
Q413	8-729-101-25	s	2SC1009A
Q414	8-729-101-25	s	2SC1009A
Q415	8-729-101-25	s	2SC1009A
Q416	8-729-101-25	s	2SC1009A
Q417	8-729-900-36	s	DTC124ES
Q501	8-729-101-25	s	2SC1009A
Q504	8-729-101-25	s	2SC1009A
Q505	8-729-101-25	s	2SC1009A
Q508	8-729-101-25	s	2SC1009A
Q509	8-729-202-38	s	2SC3326N
Q510	8-729-101-25	s	2SC1009A
Q511	8-729-101-25	s	2SC1009A
4) Q512	8-729-900-53	s	DTC114EK
Q513	8-729-202-38	s	2SC3326N
Q514	8-729-202-38	s	2SC3326N
Q515	8-729-202-38	s	2SC3326N
Q516	8-729-202-38	s	2SC3326N
Q517	8-729-202-38	s	2SC3326N
Q518	8-729-122-63	s	2SA1226
Q519	8-729-101-25	s	2SC1009A
Q520	8-729-101-25	s	2SC1009A
Q521	8-729-101-25	s	2SC1009A
Q522	8-729-101-25	s	2SC1009A
Q524	8-729-101-25	s	2SC1009A
Q525	8-729-101-25	s	2SC1009A
Q526	8-729-101-25	s	2SC1009A
4) Q527	8-729-900-53	s	DTC114EK
Q601	8-729-101-25	s	2SC1009A
Q602	8-729-101-25	s	2SC1009A
Q603	8-729-101-25	s	2SC1009A
Q604	8-729-202-38	s	2SC3326N
Q605	8-729-202-38	s	2SC3326N
Q606	8-729-202-38	s	2SC3326N
Q607	8-729-101-25	s	2SC1009A
Q608	8-729-101-25	s	2SC1009A
Q609	8-729-102-06	s	2SC2223
Q610	8-729-102-06	s	2SC2223
Q701	8-729-101-25	s	2SC1009A
Q702	8-729-122-63	s	2SA1226
Q703	8-729-122-63	s	2SA1226
Q704	8-729-101-25	s	2SC1009A
Q705	8-729-101-25	s	2SC1009A

Ref.No.	Parts No.	SP	Description
Q706	8-729-101-25	s	2SC1009A
Q707	8-729-101-25	s	2SC1009A
Q708	8-729-101-25	s	2SC1009A
Q709	8-729-101-25	s	2SC1009A
Q801	8-729-101-25	s	2SC1009A
Q803	8-729-101-25	s	2SC1009A
Q813	8-729-101-25	s	2SC1009A
Q814	8-729-101-25	s	2SC1009A
Q901	8-729-101-25	s	2SC1009A
Q902	8-729-122-63	s	2SA1226
R1	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
1) R2	1-216-650-11	s	METAL CHIP 910 0.50% 1/10W
2) R2	1-216-631-11	s	METAL CHIP 150 0.50% 1/10W
R3	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R4	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R5	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R6	1-216-639-11	s	METAL CHIP 330 0.50% 1/10W
R14	1-216-635-11	s	METAL CHIP 220 0.50% 1/10W
2) R34	1-216-631-11	s	METAL CHIP 150 0.50% 1/10W
R36	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R37	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R38	1-216-639-11	s	METAL CHIP 330 0.50% 1/10W
R39	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R40	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R46	1-216-635-11	s	METAL CHIP 220 0.50% 1/10W
R56	1-216-635-11	s	METAL CHIP 220 0.50% 1/10W
R69	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R70	1-216-643-11	s	METAL CHIP 470 0.50% 1/10W
R71	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R73	1-216-635-11	s	METAL CHIP 220 0.50% 1/10W
R74	1-216-635-11	s	METAL CHIP 220 0.50% 1/10W
R90	1-216-687-11	s	METAL CHIP 33k 0.50% 1/10W
R91	1-216-643-11	s	METAL CHIP 470 0.50% 1/10W
R92	1-216-683-11	s	METAL CHIP 22k 0.50% 1/10W
R93	1-216-642-11	s	METAL CHIP 430 0.50% 1/10W
R94	1-216-627-11	s	METAL CHIP 100 0.50% 1/10W
R95	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R96	1-216-627-11	s	METAL CHIP 100 0.50% 1/10W
R103	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R104	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R112	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R114	1-216-687-11	s	METAL CHIP 33k 0.50% 1/10W
R121	1-216-644-11	s	METAL CHIP 510 0.50% 1/10W
R122	1-216-644-11	s	METAL CHIP 510 0.50% 1/10W
R123	1-216-644-11	s	METAL CHIP 510 0.50% 1/10W
R124	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R125	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R126	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R127	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R128	1-216-643-11	s	METAL CHIP 479 0.50% 1/10W
R129	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R130	1-216-639-11	s	METAL CHIP 330 0.50% 1/10W
R131	1-216-627-11	s	METAL CHIP 100 0.50% 1/10W
R132	1-216-639-11	s	METAL CHIP 330 0.50% 1/10W
R138	1-216-643-11	s	METAL CHIP 470 0.50% 1/10W
R145	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R202	1-216-647-11	s	METAL CHIP 680 0.50% 1/10W
R219	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R225	1-216-690-11	s	METAL CHIP 43k 0.50% 1/10W
17) R228	1-216-683-11	s	METAL CHIP 22k 0.50% 1/10W

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Ref.No.	Parts No.	SP	Description			
18) R228	1-216-677-11	s	METAL CHIP 12k	0.50%	1/10W	
R229	1-216-669-11	s	METAL CHIP 5.6k	0.50%	1/10W	
R303	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R304	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R305	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R306	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R307	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R308	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R309	1-216-631-11	s	METAL CHIP 150	0.50%	1/10W	
R310	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R311	1-216-650-11	s	METAL CHIP 910	0.50%	1/10W	
R312	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R313	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R314	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R315	1-216-654-11	s	METAL CHIP 1.3k	0.50%	1/10W	
R316	1-216-619-11	s	METAL CHIP 47	0.50%	1/10W	
R317	1-216-651-11	s	METAL CHIP 47	0.50%	1/10W	
R318	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R319	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R320	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R321	1-216-631-11	s	METAL CHIP 150	0.50%	1/10W	
R322	1-216-644-11	s	METAL CHIP 510	0.50%	1/10W	
R323	1-218-178-11	s	METAL 1k	0.10%	1/16W	
R324	1-218-176-11	s	METAL 289	0.10%	1/16W	
R327	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R332	1-216-638-11	s	METAL CHIP 300	0.50%	1/10W	
R334	1-216-638-11	s	METAL CHIP 300	0.50%	1/10W	
R337	1-216-648-11	s	METAL CHIP 750	0.50%	1/10W	
R338	1-216-629-11	s	METAL CHIP 120	0.50%	1/10W	
R339	1-216-659-11	s	METAL CHIP 2.2k	0.50%	1/10W	
R340	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R342	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R343	1-216-659-11	s	METAL CHIP 2.2k	0.50%	1/10W	
R344	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R346	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
11) R357	1-216-655-11	s	METAL CHIP 1.5k	0.50%	1/10W	
10) R358	1-216-645-11	s	METAL CHIP 560	0.50%	1/10W	
10) R359	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
11) R359	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
10) R363	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R365	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R366	1-216-655-11	s	METAL CHIP 1.5k	0.50%	1/10W	
R368	1-216-650-11	s	METAL CHIP 910	0.50%	1/10W	
R370	1-216-650-11	s	METAL CHIP 910	0.50%	1/10W	
R376	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R377	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
R401	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W	
R402	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R403	1-216-650-11	s	METAL CHIP 910	0.50%	1/10W	
R420	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R421	1-216-647-11	s	METAL CHIP 680	0.50%	1/10W	
R422	1-216-650-11	s	METAL CHIP 910	0.50%	1/10W	
R424	1-216-642-11	s	METAL CHIP 430	0.50%	1/10W	
R426	1-216-030-00	s	CHIP 160	5%	1/10W	
R430	1-216-658-11	s	METAL CHIP 2k	0.50%	1/10W	
R432	1-216-637-11	s	METAL CHIP 270	0.50%	1/10W	
R434	1-216-691-11	s	METAL CHIP 47k	0.50%	1/10W	
R435	1-216-691-11	s	METAL CHIP 47k	0.50%	1/10W	
R441	1-216-624-11	s	METAL CHIP 75	0.50%	1/10W	
R448	1-216-638-11	s	METAL CHIP 3.00	0.50%	1/10W	

Ref.No.	Parts No.	SP	Description			
R449	1-216-624-11	s	METAL CHIP 75	0.50%	1/10W	
R450	1-216-623-11	s	METAL CHIP 68	0.50%	1/10W	
R452	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R505	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R526	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R541	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R544	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R546	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R565	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R566	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R567	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R568	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R569	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R582	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
R583	1-216-675-11	s	METAL CHIP 10k	0.10%	1/16W	
R591	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R593	1-216-687-11	s	METAL CHIP 33k	0.50%	1/10W	
R602	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R606	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R618	1-216-659-11	s	METAL CHIP 2.2k	0.50%	1/10W	
R621	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W	
R622	1-216-690-11	s	METAL CHIP 43k	0.50%	1/10W	
R626	1-216-669-11	s	METAL CHIP 5.6k	0.50%	1/10W	
R635	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R636	1-216-646-11	s	METAL CHIP 620	0.50%	1/10W	
R641	1-216-650-11	s	METAL CHIP 910	0.50%	1/10W	
R642	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R643	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W	
R644	1-216-646-11	s	METAL CHIP 620	0.50%	1/10W	
R645	1-216-644-11	s	METAL CHIP 510	0.50%	1/10W	
R646	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R647	1-216-648-11	s	METAL CHIP 750	0.50%	1/10W	
R702	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R703	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R704	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R705	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R707	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R708	1-216-631-11	s	METAL CHIP 150	0.50%	1/10W	
R709	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R710	1-216-650-11	s	METAL CHIP 910	0.50%	1/10W	
R711	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W	
R712	1-216-649-11	s	METAL CHIP 820	0.50%	1/16W	
R713	1-216-619-11	s	METAL CHIP 47	0.50%	1/16W	
R714	1-216-619-11	s	METAL CHIP 47	0.50%	1/10W	
R715	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R716	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R717	1-216-639-11	s	METAL CHIP 330	0.50%	1/10W	
R718	1-216-627-11	s	METAL CHIP 100	0.50%	1/10W	
R719	1-216-649-11	s	METAL CHIP 820	0.50%	1/10W	
R720	1-218-177-11	s	METAL 1k	0.10%	1/16W	
R721	1-218-175-11	s	METAL 267	0.10%	1/16W	
R722	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W	
R723	1-216-654-11	s	METAL CHIP 1.3k	0.50%	1/10W	
R729	1-216-647-11	s	METAL CHIP 680	0.50%	1/10W	
R738	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W	
R739	1-216-673-11	s	METAL CHIP 8.2k	0.50%	1/10W	
R740	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W	
R741	1-216-647-11	s	METAL CHIP 680	0.50%	1/10W	
R742	1-216-638-11	s	METAL CHIP 300	0.50%	1/10W	

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description	Ref.No.	Parts No.	SP	Description
R743	1-216-638-11	s	METAL CHIP 300 0.50% 1/10W	RV505	1-228-459-00	s	VAR, CERMET 10k
R744	1-216-638-11	s	METAL CHIP 300 0.50% 1/10W	4) RV507	1-228-457-00	s	VAR, CERMET 2k
R745	1-216-638-11	s	METAL CHIP 300 0.50% 1/10W	4) RV508	1-237-515-21	s	VAR, CERMET 1k
R748	1-216-629-11	s	METAL CHIP 120 0.50% 1/10W	4) RV509	1-237-515-21	s	VAR, CERMET 1k
R749	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W	4) RV510	1-237-515-21	s	VAR, CERMET 1k
R750	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W	4) RV511	1-237-515-21	s	VAR, CERMET 1k
R803	1-216-650-11	s	METAL CHIP 910 0.50% 1/10W	RV512	1-228-457-00	s	VAR, CERMET 2k
R804	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W	RV601	1-228-458-00	s	VAR, CERMET 5k
R824	1-216-624-11	s	METAL CHIP 75 0.50% 1/10W	RV602	1-228-455-00	s	VAR, CERMET 500
R827	1-216-615-11	s	METAL CHIP 33 0.50% 1/10W	RV603	1-228-459-00	s	VAR, CERMET 10k
R828	1-216-675-11	s	METAL CHIP 10 0.50% 1/10W	RV604	1-228-462-00	s	VAR, CERMET 100k
R835	1-216-624-11	s	METAL CHIP 75 0.50% 1/10W	RV605	1-228-460-00	s	VAR, CERMET 20k
R836	1-216-623-11	s	METAL CHIP 68 0.50% 1/10W	RV606	1-228-459-00	s	VAR, CERMET 10k
				RV701	1-228-460-00	s	VAR, CERMET 20k
				RV702	1-228-455-00	s	VAR, CERMET 500
RB901	1-231-411-00	s	RESISTOR BLOCK 100k	RV703	1-237-516-21	s	VAR, CERMET 2k
				RV704	1-228-456-00	s	VAR, CERMET 1k
RV1	1-228-458-00	s	VAR, CERMET 5k	3) RV801	1-217-587-11	s	SHORT
RV2	1-228-457-00	s	VAR, CERMET 2k	RV802	1-228-456-00	s	VAR, CERMET 1k
RV3	1-228-459-00	s	VAR, CERMET 10k				
RV4	1-228-456-00	s	VAR, CERMET 1k	S402	1-552-509-00	s	DIP
RV6	1-228-458-00	s	VAR, CERMET 5k	S403	1-552-509-00	s	DIP
RV7	1-228-457-00	s	VAR, CERMET 2k	S802	1-552-509-00	s	DIP
RV8	1-228-459-00	s	VAR, CERMET 10k	S901	1-552-509-00	s	DIP
4) RV9	1-228-457-00	s	VAR, CERMET 2k				
4) RV11	1-237-515-21	s	VAR, CERMET 1k	1) SP101	1-565-413-11	s	RECEPTACLE 2P
4) RV12	1-237-515-21	s	VAR, CERMET 1k	2) SP101	1-566-385-11	o	2P
4) RV13	1-237-515-21	s	VAR, CERMET 1k	1) SP102	1-565-413-11	s	RECEPTACLE 2P
4) RV14	1-237-515-21	s	VAR, CERMET 1k	2) SP102	1-566-385-11	o	2P
RV15	1-228-456-00	s	VAR, CERMET 1k	1) SP301	1-565-413-11	s	RECEPTACLE 2P
RV102	1-237-515-21	s	VAR, CERMET 1k				
RV103	1-237-515-21	s	VAR, CERMET 1k	2) SP301	1-566-385-11	o	2P
RV104	1-228-459-00	s	VAR, CERMET 10k	1) SP402	1-565-413-11	s	RECEPTACLE 2P
RV105	1-228-456-00	s	VAR, CERMET 1k	2) SP402	1-566-385-11	o	2P
RV106	1-237-515-21	s	VAR, CERMET 1k	1) SP501	1-565-413-11	s	RECEPTACLE 2P
RV107	1-237-515-21	s	VAR, CERMET 1k	2) SP501	1-566-385-11	o	2P
RV201	1-228-457-11	s	VAR, CERMET 2k				
RV202	1-237-535-11	s	VAR, CERMET 200	1) SP502	1-565-413-11	s	RECEPTACLE 2P
RV203	1-228-459-00	s	VAR, CERMET 10k	2) SP502	1-566-385-11	o	2P
10) RV204	1-228-461-00	s	VAR, CERMET 50k	1) SP701	1-565-413-11	s	RECEPTACLE 2P
11) RV204	1-228-462-00	s	VAR, CERMET 100k	2) SP701	1-566-385-11	o	2P
17) RV205	1-228-461-00	s	VAR, CERMET 50k	1) SP801	1-565-413-11	s	RECEPTACLE 2P
18) RV205	1-228-462-00	s	VAR, CERMET 100k				
RV206	1-228-459-00	s	VAR, CERMET 10k	2) SP801	1-566-385-11	o	2P
RV207	1-228-459-00	s	VAR, CERMET 10k				
RV301	1-228-459-00	s	VAR, CERMET 10k	1) SS101	1-566-385-11	s	2P
RV302	1-237-535-11	s	VAR, CERMET 200	2) SS101	1-565-413-11	s	RECEPTACLE 2P
RV303	1-228-456-00	s	VAR, CERMET 1k	1) SS301	1-566-385-11	s	2P
RV304	1-228-455-00	s	VAR, CERMET 500	2) SS301	1-565-413-11	s	RECEPTACLE 2P
RV305	1-237-518-21	s	VAR, CERMET 10k	1) SS402	1-566-385-11	s	2P
RV306	1-228-458-00	s	VAR, CERMET 5k				
RV307	1-228-458-00	s	VAR, CERMET 5k	2) SS402	1-565-413-11	s	RECEPTACLE 2P
RV308	1-228-456-00	s	VAR, CERMET 1k	1) SS501	1-566-385-11	s	2P
RV401	1-228-458-00	s	VAR, CERMET 5k	2) SS501	1-565-413-11	s	RECEPTACLE 2P
RV405	1-228-462-00	s	VAR, CERMET 10k	1) SS701	1-566-385-11	s	2P
RV406	1-228-456-00	s	VAR, CERMET 1k	2) SS701	1-565-413-11	s	RECEPTACLE 2P
3) RV501	1-228-455-00	s	VAR, CERMET 500				
4) RV501	1-228-457-00	s	VAR, CERMET 2k	1) SS801	1-566-385-11	s	2P
RV502	1-228-459-00	s	VAR, CERMET 10k	2) SS801	1-565-413-11	s	RECEPTACLE 2P
RV503	1-228-456-00	s	VAR, CERMET 1k				
3) RV504	1-228-455-00	s	VAR, CERMET 500	TH301	1-800-202-XX	s	S-10K
4) RV504	1-228-457-00	s	VAR, CERMET 2k	TH402	1-800-200-00	s	S-3K
				TH701	1-800-200-00	s	S-3K

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".



# DP-71/72/73/74, DR-56

Ref.No. Parts No. SP Description

## DP-71 BOARD

All the component parts on the DP-71 board are supplied together when you order the key chassis ass'y.

1-622-556-11 o PRINTED CIRCUIT BOARD, DP-71

D43 8-719-942-19 s LB-402VK  
D44 8-719-942-19 s LB-402VK  
D45 8-719-942-19 s LB-402VK  
D46 8-719-942-19 s LB-402VK

S29 1-552-539-00 s KEY BOARD  
S30 1-552-539-00 s KEY BOARD  
S31 1-552-539-00 s KEY BOARD

## DP-72 BOARD

1-622-591-12 o PRINTED CIRCUIT BOARD, DP-72

D1 8-719-800-89 s TLY255  
D2 8-719-800-89 s TLY255  
D3 8-719-800-89 s TLY255  
D4 8-719-800-89 s TLY255

## DP-73 BOARD

All the component parts on the DP-73 board are supplied together when you order the indication tube ass'y.

C101 1-124-343-11 s ELECT 2200 20% 16V

L101 1-459-155-00 s 45 (WITH CORE)  
L102 1-459-155-00 s 45 (WITH CORE)

R101 1-207-620-11 s WIRE 1 10% 3W  
R102 1-532-675-21 s IC LINK

S101 1-571-258-11 s SLIDE  
S102 1-571-258-11 s SLIDE

Ref.No. Parts No. SP Description

## DP-74 BOARD

All the component parts on the DP-74 board are supplied together when you order the indication tube ass'y.

C5 1-124-255-00 s ELECT 100 20% 6.3V  
C6 1-124-248-00 s ELECT 22 20% 35V  
C8 1-124-584-00 s ELECT 100 20% 10V  
C9 1-124-584-00 s ELECT 100 20% 10V  
C13 1-124-255-00 s ELECT 1 20% 50V  
C14 1-124-224-00 s ELECT 47 20% 6.3V

CN1 1-535-900-11 o WIRE, JUMPER

D1 8-719-095-65 s RD3.3ES-B1  
D2 8-719-100-05 s 1S2837  
D3 8-719-109-72 s RD3.9ES-B2  
D4 8-719-100-05 s 1S2837  
D5 8-719-100-05 s 1S2837

IC1 8-759-942-62 s MB88515B-280M (FUJITSU)  
IC2 8-759-904-71 s MSL917RS (OKI)

Q1 8-729-901-06 s DTA144EK  
Q2 8-729-901-06 s DTA144EK  
Q3 8-729-901-06 s DTA144EK  
Q4 8-729-271-23 s 2SC2712  
Q5 8-729-271-23 s 2SC2712

RV1 1-228-471-00 s VAR, CERMET 1k

X1 1-567-143-00 s OSCILLATOR, CERAMIC 6.00MHz

## DR-56 BOARD

1-622-561-12 o PRINTED CIRCUIT BOARD, DR-56

Q1 8-729-376-83 s 2SA768-Y  
Q2 8-729-402-12 s 2SD1276A  
Q3 8-729-402-12 s 2SD1276A  
Q4 8-729-402-12 s 2SD1276A  
Q5 8-729-402-12 s 2SD1276A

Q6 8-729-402-12 s 2SD1276A  
Q7 8-729-402-12 s 2SD1276A  
Q8 8-729-376-83 s 2SA768-Y  
Q9 8-729-102-57 s 2SC3012  
Q10 8-729-114-11 s 2SA1141

Q11 8-729-114-11 s 2SA1141  
Q12 8-729-102-57 s 2SC3012

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

DT-13 BOARD

IC21 8-759-734-38 s 2764-BVW-75P V1.04DT

A-6715-359-A o MOUNTED CIRCUIT BOARD, DT-13

C100 1-124-236-00 s ELECT 47 20% 16V  
 C101 1-124-236-00 s ELECT 47 20% 16V  
 C102 1-124-236-00 s ELECT 47 20% 16V  
 C214 1-124-462-00 s ELECT 10 20% 16V  
 C215 1-124-236-00 s ELECT 47 20% 16V

3) CNI 1-506-748-31 s DIN 96P  
 4) CNI 1-506-748-11 s DIN 96P

D10 8-719-911-19 s 1SS119  
 D12 8-719-911-19 s 1SS119  
 D13 8-719-911-19 s 1SS119  
 D201 8-719-911-19 s 1SS119  
 D202 8-719-101-97 s 1SS97-1

D203 8-719-911-19 s 1SS119  
 D204 8-719-911-19 s 1SS119  
 D205 8-719-911-19 s 1SS119  
 D302 8-719-911-19 s 1SS119  
 D303 8-719-911-19 s 1SS119

D305 8-719-800-60 s TLR214  
 D306 8-719-101-97 s 1SS97-1

IC1 8-759-145-58 s uPC4558C (NEC)  
 IC3 8-759-926-65 s SN74HC368NS (TI)  
 IC4 8-759-145-58 s uPC4558C (NEC)  
 IC5 8-759-729-03 s NJM2903D (JRC)  
 IC6 8-759-200-80 s TC4050BF (TOSHIBA)  
 IC7 8-759-207-74 s TC4030BFHB (TOSHIBA)  
 IC9 8-759-200-67 s TC4001BF (TOSHIBA)  
 IC10 8-759-200-84 s TC4081BF (TOSHIBA)  
 IC11 8-759-200-90 s TC4538BF (TOSHIBA)  
 IC15 8-759-914-74 s MSM5204ARS (OKI)  
 IC19 8-759-204-71 s TC40H163F (TOSHIBA)  
 IC20 8-759-208-86 s TMP284C011AF-6 (TOSHIBA)  
 IC22 8-752-323-64 s CXK5816M-12L (SONY)  
 IC23 8-759-204-60 s TC40H139F (TOSHIBA)  
 IC24 8-759-201-63 s TC40H032F (TOSHIBA)  
 IC26 8-759-208-41 s TMP284C30AF-6 (TOSHIBA)  
 IC27 8-759-205-06 s TC74HC74F (TOSHIBA)  
 IC28 8-759-938-68 s CKD1095Q (SONY)  
 IC35 8-759-910-83 s TL072ACP (TI)  
 IC37 8-759-208-11 s TC4053BFHB (TOSHIBA)

IC38 8-759-208-11 s TC4053BFHB (TOSHIBA)  
 IC40 8-759-145-58 s uPC4558C (NEC)  
 IC42 8-759-205-78 s TC504013BF (TOSHIBA)

Q201 8-729-600-27 s 2SC634SP  
 Q306 8-729-600-27 s 2SC634SP

Ref.No. Parts No. SP Description

R151 1-247-895-00 s CARBON 470k 5% 1/4W  
 R230 1-247-887-00 s CARBON 220k 5% 1/4W

RB201 1-231-387-00 s NETTY  
 RB202 1-231-387-00 s NETTY  
 RB203 1-232-029-11 s COMPOSITION CIRCUIT BLOCK  
 RB204 1-232-235-11 s COMPOSITION CIRCUIT BLOCK  
 RB301 1-231-387-00 s NETTY

RB302 1-231-387-00 s NETTY

RV205 1-237-518-21 s VAR, CERMET 10k  
 RV206 1-237-518-21 s VAR, CERMET 10k

S201 1-553-572-00 s DIP (PIANO TYPE)  
 S202 1-552-539-00 s KEY BOARD

X201 1-567-865-11 s VIBRATOR 12.000MHz

DT-14P BOARD

2) This board includes the DUS-282 board.

A-6715-387-A o MOUNTED CIRCUIT BOARD, DT-14P

C9 1-136-153-00 s MYLAR 0.01 10% 50V  
 C10 1-162-710-11 s CERAMIC 100pF 1% 50V  
 C11 1-136-165-00 s MYLAR 0.1 10% 50V  
 C12 1-136-153-00 s MYLAR 0.01 10% 50V  
 C14 1-136-153-00 s MYLAR 0.01 10% 50V

C16 1-136-155-00 s MYLAR 0.015 10% 50V  
 C17 1-136-153-00 s MYLAR 0.01 10% 50V  
 C19 1-162-722-11 s CERAMIC 330pF 1% 50V  
 C20 1-136-157-00 s MYLAR 0.022 10% 50V  
 C21 1-136-153-00 s MYLAR 0.01 10% 50V

C22 1-136-153-00 s MYLAR 0.01 10% 50V  
 C23 1-136-153-00 s MYLAR 0.01 10% 50V  
 C24 1-162-710-11 s CERAMIC 100pF 1% 50V  
 C25 1-136-153-00 s MYLAR 0.01 10% 50V  
 C26 1-136-165-00 s MYLAR 0.1 10% 50V

C28 1-136-153-00 s MYLAR 0.01 10% 50V  
 C30 1-136-155-00 s MYLAR 0.015 10% 50V  
 C31 1-136-159-00 s MYLAR 0.033 10% 50V  
 C32 1-136-161-00 s MYLAR 0.047 10% 50V  
 C34 1-136-165-00 s MYLAR 0.1 10% 50V

C35 1-136-159-00 s MYLAR 0.033 10% 50V  
 C36 1-136-161-00 s MYLAR 0.047 10% 50V  
 C38 1-130-511-91 s MYLAR 0.0039 10% 50V  
 C39 1-130-511-91 s MYLAR 0.0039 10% 50V  
 C40 1-136-153-00 s MYLAR 0.01 10% 50V

C41 1-136-153-00 s MYLAR 0.01 10% 50V  
 C42 1-136-153-00 s MYLAR 0.01 10% 50V  
 C43 1-136-153-00 s MYLAR 0.01 10% 50V  
 C45 1-136-165-00 s MYLAR 0.1 10% 50V  
 C49 1-130-511-91 s MYLAR 0.0039 10% 50V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description	Ref.No.	Parts No.	SP	Description
C50	1-130-511-91	s	MYLAR 0.0039 10% 50V	IC11	8-759-145-58	s	uPC4558C (NEC)
C51	1-136-153-00	s	MYLAR 0.01 10% 50V	IC12	8-759-200-74	s	TC4023BF (TOSHIBA)
C52	1-136-153-00	s	MYLAR 0.01 10% 50V	IC13	8-759-200-82	s	TC4069UBF (TOSHIBA)
C53	1-136-153-00	s	MYLAR 0.01 10% 50V	IC14	8-759-200-68	s	TC4011BF (TOSHIBA)
C54	1-136-153-00	s	MYLAR 0.01 10% 50V	IC15	8-759-145-58	s	uPC4558C (NEC)
C58	1-136-165-00	s	MYLAR 0.1 10% 50V	IC16	8-759-145-58	s	uPC4558C (NEC)
C59	1-136-165-00	s	MYLAR 0.1 10% 50V	IC17	8-759-145-58	s	uPC4558C (NEC)
C76	1-136-157-00	s	MYLAR 0.022 10% 50V	IC18	8-759-145-58	s	uPC4558C (NEC)
C77	1-136-157-00	s	MYLAR 0.022 10% 50V	IC19	8-759-145-58	s	uPC4558C (NEC)
C100	1-124-236-00	s	ELECT 47 20% 16V	IC20	8-759-145-58	s	uPC4558C (NEC)
C101	1-124-236-00	s	ELECT 47 20% 16V	IC21	8-759-200-81	s	TC4053BF (TOSHIBA)
C102	1-124-236-00	s	ELECT 47 20% 16V	IC22	8-759-200-81	s	TC4053BF (TOSHIBA)
C206	1-136-153-00	s	MYLAR 0.01 10% 50V	IC23	8-759-200-81	s	TC4053BF (TOSHIBA)
C207	1-161-013-00	s	CERAMIC 0.01 10% 25V	IC43	8-759-205-78	s	TC504013BF (TOSHIBA)
C301	1-136-153-00	s	MYLAR 0.01 10% 50V	IC44	8-759-300-78	s	HD14538BFP (HITACHI)
C302	1-136-153-00	s	MYLAR 0.01 10% 50V	IC45	8-759-207-74	s	TC4030BFHB (TOSHIBA)
C304	1-124-236-00	s	ELECT 47 20% 16V	IC46	8-759-300-78	s	HD14538BFP (HITACHI)
C305	1-124-236-00	s	ELECT 47 20% 16V	IC47	8-759-205-78	s	TC504013BF (TOSHIBA)
C313	1-162-714-11	s	CERAMIC 150pF 1% 50V	IC48	8-759-300-78	s	HD14538BFP (HITACHI)
C314	1-124-234-00	s	ELECT 22 20% 16V	IC50	8-759-200-81	s	TC4053BF (TOSHIBA)
C316	1-162-726-11	s	CERAMIC 470pF 1% 50V	IC51	8-759-200-81	s	TC4053BF (TOSHIBA)
C317	1-136-153-00	s	MYLAR 0.01 10% 50V	IC101	8-752-006-12	s	CK20061 (SONY)
C319	1-136-153-00	s	MYLAR 0.01 10% 50V	IC102	8-759-400-06	s	AN608P (MATSUSHITA)
C320	1-136-165-00	s	MYLAR 0.1 10% 50V	IC103	8-759-324-11	s	HAI2411 (HITACHI)
C325	1-130-511-91	s	MYLAR 0.0039 10% 50V	IC104	8-749-909-15	s	BX3915A (SONY)
C329	1-136-153-00	s	MYLAR 0.01 10% 50V	IC105	8-759-729-03	s	NJM2903D (JRC)
C338	1-136-157-00	s	MYLAR 0.022 10% 50V	IC106	8-759-300-78	s	HD14538BFP (HITACHI)
C339	1-161-013-00	s	CERAMIC 0.01 10% 25V	L301	1-410-482-31	s	MICRO 100
3) CN1	1-506-748-31	s	DIN 96P	L303	1-410-468-11	s	MICRO 6.8
4) CN1	1-506-748-11	s	DIN 96P	Q1	8-729-201-04	s	2SC2878
D1	8-719-911-19	s	1SS119	Q2	8-729-201-04	s	2SC2878
D2	8-719-101-97	s	1SS97-1	Q301	8-729-173-37	s	2SA733-P
D3	8-719-911-19	s	1SS119	Q302	8-729-266-93	s	2SC2669Y
D4	8-719-109-72	s	RD3.9ES-B2	Q303	8-729-201-04	s	2SC2878
D5	8-719-109-72	s	RD3.9ES-B2	Q304	8-729-266-93	s	2SC2669Y
D6	8-719-911-19	s	1SS119	Q305	8-729-201-04	s	2SC2878
D7	8-719-911-19	s	1SS119	Q501	8-729-178-54	s	2SC2785*(28)
D8	8-719-911-19	s	1SS119	R25	1-247-883-00	s	CARBON 150k 5% 1/4W
D9	8-719-911-19	s	1SS119	R37	1-247-887-00	s	CARBON 220k 5% 1/4W
D14	8-719-911-19	s	1SS119	R38	1-247-887-00	s	CARBON 220k 5% 1/4W
D15	8-719-911-19	s	1SS119	R505	1-247-885-00	s	CARBON 180k 5% 1/4W
D16	8-719-911-19	s	1SS119	R506	1-247-885-00	s	CARBON 180k 5% 1/4W
D17	8-719-911-19	s	1SS119	RV2	1-237-520-21	s	VAR, CERMET 50k
D301	8-719-911-19	s	1SS119	RV3	1-237-520-21	s	VAR, CERMET 50k
D304	8-719-911-19	s	1SS119	RV4	1-237-520-21	s	VAR, CERMET 50k
IC1	8-759-300-78	s	HD14538BFP (HITACHI)	RV5	1-237-520-21	s	VAR, CERMET 50k
IC2	8-759-205-78	s	TC504013BF (TOSHIBA)	RV6	1-237-518-21	s	VAR, CERMET 10k
IC3	8-759-145-58	s	uPC4558C (NEC)	RV7	1-237-518-21	s	VAR, CERMET 10k
IC4	8-759-145-58	s	uPC4558C (NEC)	RV203	1-237-521-21	s	VAR, CERMET 100k
IC5	8-759-145-58	s	uPC4558C (NEC)	RV304	1-237-520-21	s	VAR, CERMET 50k
IC6	8-759-145-58	s	uPC4558C (NEC)	RV305	1-237-521-21	s	VAR, CERMET 100k
IC7	8-759-145-58	s	uPC4558C (NEC)	S1	1-552-509-00	s	DIP
IC8	8-759-145-58	s	uPC4558C (NEC)				
IC9	8-759-300-78	s	HD14538BFP (HITACHI)				
IC10	8-759-300-78	s	HD14538BFP (HITACHI)				

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

DT-15 BOARD

A A-6715-355-A o MOUNTED CIRCUIT BOARD, DT-15

1-533-189-11 o HOLDER, FUSE  
 1-533-189-11 o HOLDER, FUSE  
 1-562-151-11 o HOUSING 6P  
 1-562-157-11 o HOUSING 12P

C1 1-136-161-00 s MYLAR 0.047 10X 50V  
 C2 1-123-321-00 s ELECT 220 20X 16V  
 C3 1-123-321-00 s ELECT 220 20X 16V  
 C4 1-123-321-00 s ELECT 220 20X 16V  
 C5 1-123-321-00 s ELECT 220 20X 16V

C6 1-123-321-00 s ELECT 220 20X 16V  
 C7 1-123-321-00 s ELECT 220 20X 16V  
 C8 1-130-834-00 s FILM 1 10X 63V  
 C9 1-136-200-11 s FILM 0.15 10X 400V  
 C10 1-136-200-11 s FILM 0.15 10X 400V

C11 1-136-200-11 s FILM 0.15 10X 400V  
 C12 1-136-200-11 s FILM 0.15 10X 400V  
 C13 1-136-200-11 s FILM 0.15 10X 400V  
 C14 1-136-200-11 s FILM 0.15 10X 400V  
 C15 1-136-161-00 s MYLAR 0.047 10X 50V

C16 1-136-161-00 s MYLAR 0.047 10X 50V  
 C43 1-123-932-00 s ELECT 4.7 160V  
 C46 1-123-932-00 s ELECT 4.7 160V  
 C60 1-162-710-11 s CERAMIC 100pF 1X 50V  
 C61 1-162-710-11 s CERAMIC 100pF 1X 50V

D1 8-719-815-85 s 1S1585  
 D2 8-719-924-06 s ERC24-06S  
 D3 8-719-924-06 s ERC24-06S  
 D4 8-719-924-06 s ERC24-06S  
 D5 8-719-924-06 s ERC24-06S

D7 8-719-100-05 s 1S2837  
 D8 8-719-100-03 s 1S2835  
 D9 8-719-101-23 s 1S8123  
 D11 8-719-109-97 s RD6.8ES-B2  
 D12 8-719-101-23 s 1S8123

D15 8-719-100-03 s 1S2835

A F1 1-532-078-00 s 250V, 1A

IC7 8-759-945-58 s RC4558P (RAYTHEON)  
 IC8 8-759-945-58 s RC4558P (RAYTHEON)  
 IC9 8-759-945-58 s RC4558P (RAYTHEON)  
 IC10 8-759-945-58 s RC4558P (RAYTHEON)

L1 1-410-852-11 s CHOKE 138  
 L3 1-407-510-00 s MICRO 33MMH  
 L4 1-407-510-00 s MICRO 33MMH  
 L5 1-407-510-00 s MICRO 33MMH  
 L6 1-407-510-00 s MICRO 33MMH

Ref.No. Parts No. SP Description

Q1 8-729-101-68 s 2SC2654  
 Q2 8-729-101-68 s 2SC2654  
 Q6 8-729-105-97 s 2SA1156-2K  
 Q7 8-729-141-78 s 2SC3632-K  
 Q8 8-729-141-78 s 2SC3632-K

Q9 8-729-202-38 s 2SC3326N  
 Q10 8-729-216-21 s 2SA1162Y  
 Q11 8-729-118-43 s 2SA1413-L  
 Q12 8-729-105-97 s 2SA1156-2K  
 Q13 8-729-141-78 s 2SC3632-K

Q14 8-729-141-78 s 2SC3632-K  
 Q15 8-729-202-38 s 2SC3326N  
 Q16 8-729-216-21 s 2SA1162-Y  
 Q17 8-729-118-43 s 2SA1413-L

R1 1-249-457-11 s CARBON 6.8 5X 1/4W  
 R2 1-247-700-11 s CARBON 100 5X 1/4W  
 R3 1-249-457-11 s CARBON 6.8 5X 1/4W  
 R4 1-247-713-11 s CARBON 1k 5X 1/4W  
 R47 1-244-937-00 s CARBON 470k 5X 1/2W

R52 1-214-924-00 s METAL 300k 1X 1/2W  
 R54 1-214-915-00 s CARBON 120k 5X 1/2W  
 R55 1-214-915-00 s CARBON 120k 5X 1/2W  
 R58 1-247-755-11 s CARBON 1.8k 5X 1/2W  
 R65 1-244-937-00 s CARBON 470k 5X 1/2W

R70 1-214-924-00 s METAL 300k 1X 1/2W  
 R72 1-214-915-00 s CARBON 120k 5X 1/2W  
 R73 1-214-915-00 s CARBON 120k 5X 1/2W  
 R76 1-247-755-11 s CARBON 1.8k 5X 1/2W

RV2 1-237-503-21 s VAR, CERMET 10k

T1 1-448-937-11 s CONVERTER

DUS-259 BOARD

All the component parts on the DUS-259 board are supplied together when you order DM-56P board.

C1 1-107-080-00 s MICA 62pF 5X 50V

CN1 1-564-783-11 o 5P

Q1 8-729-102-07 s 2SC2223-F13  
 Q2 8-729-102-07 s 2SC2223-F13

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# US-269/270/282/288, EN-48P

Ref.No. Parts No. SP Description

## DUS-269 BOARD

All the component parts on the DUS-269 board are supplied together when you order the DM-56P board.

G625 1-126-101-11 s ELECT 100 20% 16V

CN1 1-566-473-21 s 1P  
CN2 1-566-473-11 s 1P  
CN3 1-566-473-21 s 1P  
CN4 1-566-473-11 s 1P

L606 1-410-782-31 s MICRO 100

Q1 8-729-101-25 s 2SC1009A  
Q2 8-729-101-25 s 2SC1009A

R1 1-216-651-11 s METAL CHIP 10k 0.50% 1/10W  
R2 1-216-650-11 s METAL CHIP 910 0.50% 1/10W  
R3 1-216-651-11 s METAL CHIP 10k 0.50% 1/10W

RV1 1-228-457-11 s VAR, CERMET 2k

## DUS-270 BOARD

All the component parts on the DUS-270 board are supplied together when you order the VO-18AP board.

G655 1-124-222-00 s ELECT 22 20% 6.3V

Q607 8-729-100-66 s 2SC1623  
Q608 8-729-100-66 s 2SC1623

## 2) DUS-282 BOARD

All the component parts on the DUS-282 board are supplied together when you order the DT-14P board.

A-6724-647-A o MOUNTED CIRCUIT BOARD, DUS-282

IC53 8-759-908-92 s TL084CNS (TI)

Ref.No. Parts No. SP Description

## 4) DUS-288 BOARD

All the component parts on the DUS-288 board are supplied together when you order the DM-56P board.

1-628-943-11 o PRINTED CIRCUIT BOARD, DUS-288

C1 1-163-241-00 s CERAMIC CHIP 39pF 5% 50V

CN1 1-566-473-11 o PIN, SOCKET 1P  
CN2 1-566-473-11 o PIN, SOCKET 1P

CV1 1-141-260-00 s TRIMMER, CERAMIC 30pF

Q1 8-729-109-43 s 2SK94-X3

R1 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W

## EN-48P BOARD

A-6711-891-A o MOUNTED CIRCUIT BOARD, EN-48P

C6 1-124-584-00 s ELECT 100 20% 10V  
C8 1-124-584-00 s ELECT 100 20% 10V  
C12 1-124-222-00 s ELECT 22 20% 6.3V  
C13 1-124-462-00 s ELECT 10 20% 6.3V  
C14 1-124-584-00 s ELECT 100 20% 10V

C16 1-124-584-00 s ELECT 100 20% 10V  
C21 1-124-584-00 s ELECT 100 20% 10V  
C22 1-124-584-00 s ELECT 100 20% 10V  
C41 1-162-886-21 s CERAMIC 390pF 5% 50V  
C43 1-124-236-00 s ELECT 47 20% 10V

C46 1-124-236-00 s ELECT 47 20% 10V  
C48 1-124-236-00 s ELECT 47 20% 10V  
C51 1-124-584-00 s ELECT 100 20% 10V  
C53 1-124-584-00 s ELECT 100 20% 10V  
C55 1-163-033-00 s CERAMIC CHIP 0.022 50V

C56 1-124-236-00 s ELECT 47 20% 16V  
C59 1-124-236-00 s ELECT 47 20% 16V  
C61 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C64 1-162-880-21 s CERAMIC 120pF 5% 50V  
C68 1-124-584-00 s ELECT 100 20% 10V

C70 1-124-236-00 s ELECT 47 20% 10V  
C71 1-162-877-21 s CERAMIC 82pF 5% 50V  
C77 1-124-584-00 s ELECT 100 20% 10V  
C81 1-124-584-00 s ELECT 100 20% 10V  
C85 1-124-236-00 s ELECT 47 20% 10V

C86 1-162-886-21 s CERAMIC 390pF 5% 50V  
C89 1-161-463-00 s CERAMIC 220pF 5% 50V  
C92 1-124-584-00 s ELECT 100 20% 10V  
C111 1-124-584-00 s ELECT 100 20% 10V  
C112 1-124-225-00 s ELECT 100 20% 6.3V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

## Ref.No. Parts No. SP Description

C115 1-124-584-00 s ELECT 100 20% 10V  
 C117 1-124-584-00 s ELECT 100 20% 10V  
 C118 1-124-225-00 s ELECT 100 20% 6.3V  
 C126 1-124-584-00 s ELECT 100 20% 10V  
 C130 1-124-584-00 s ELECT 100 20% 10V

C134 1-124-225-00 s ELECT 100 20% 6.3V  
 C203 1-124-584-00 s ELECT 100 20% 10V  
 C204 1-124-584-00 s ELECT 100 20% 10V  
 C214 1-163-033-00 s CERAMIC CHIP 0.022 50V  
 C216 1-163-033-00 s CERAMIC CHIP 0.022 50V

C350 1-124-584-00 s ELECT 100 20% 10V  
 C357 1-124-584-00 s ELECT 100 20% 10V  
 C400 1-124-225-00 s ELECT 100 20% 6.3V  
 C503 1-124-462-00 s ELECT 10 20% 6.3V  
 C506 1-124-584-00 s ELECT 100 20% 10V

C507 1-124-584-00 s ELECT 100 20% 10V  
 C508 1-161-463-00 s CERAMIC 220pF 5% 50V  
 C603 1-124-462-00 s ELECT 10 20% 6.3V  
 C604 1-124-236-00 s ELECT 47 20% 10V  
 C613 1-161-463-00 s CERAMIC 220pF 5% 50V

C711 1-124-584-00 s ELECT 100 20% 10V

3) CN102 1-506-748-31 s DIN 96P  
 4) CN102 1-506-748-11 s DIN 96P

D1 8-719-100-03 s 1S2835

DL1 1-415-538-11 s ACTIVE 100ns

FL1 1-236-004-11 s LOW-PASS 2.5MHz  
 FL2 1-236-004-11 s LOW-PASS 2.5MHz  
 FL3 1-236-530-11 s BANDPASS 4.43MHz  
 FL4 1-236-120-11 s BANDPASS 4.43MHz

IC1 8-759-014-29 s MC34184M (MOTOROLA)  
 IC2 1-808-743-11 s CIRCUIT UNIT, VA  
 IC3 8-759-009-07 s MC14053BF (MOTOROLA)  
 IC4 8-759-906-59 s CX22017 (SONY)  
 IC5 8-752-053-97 s CX20158 (SONY)

IC6 8-759-030-16 s MC34182M (MOTOROLA)  
 IC10 8-759-012-02 s MC10H124M (MOTOROLA)  
 IC11 8-759-012-03 s MC10H131M (MOTOROLA)  
 IC12 8-759-929-73 s SN74LS00NS (TI)  
 IC13 8-759-011-98 s MC10H113M (MOTOROLA)

IC14 8-759-204-96 s TC74HC04F (TOSHIBA)  
 IC15 8-759-007-50 s MC74HC11F (MOTOROLA)  
 IC16 8-759-922-49 s SN74LS74ANS (TI)  
 IC17 8-759-908-17 s TL082CPS (TI)  
 IC18 8-759-008-52 s MC74HC123AF (MOTOROLA)

IC19 8-759-907-81 s SN74LS221NS (TI)  
 IC20 8-752-306-51 s CX23065A (SONY)  
 IC21 8-759-929-78 s SN74LS04NS (TI)  
 IC22 8-759-930-56 s SN74LS163ANS (TI)  
 IC24 8-759-941-27 s MB4002PF (FUJITSU)

## Ref.No. Parts No. SP Description

IC25 8-759-922-49 s SN74LS74ANS (TI)  
 IC26 8-759-941-17 s SN74LS06NS (TI)  
 IC27 8-759-907-81 s SN74LS221NS (TI)  
 IC31 8-759-922-49 s SN74LS74ANS (TI)  
 IC32 8-759-907-81 s SN74LS221NS (TI)

IC33 8-759-907-81 s SN74LS221NS (TI)  
 IC34 8-759-205-06 s TC74HC74F (TOSHIBA)  
 IC35 8-759-030-16 s MC34182M (MOTOROLA)  
 IC36 8-759-907-81 s SN74LS221NS (TI)  
 IC37 8-759-929-99 s SN74LS32NS (TI)

IC38 8-759-009-07 s MC14053BF (MOTOROLA)  
 IC39 8-759-239-58 s TC74HC221AF (TOSHIBA)  
 IC50 8-759-014-29 s MC34184M (MOTOROLA)  
 IC51 8-759-015-81 s CX20158 (SONY)  
 IC52 1-464-601-11 s CIRCUIT UNIT, VA

IC53 8-752-015-81 s CX20158 (SONY)  
 IC54 8-759-009-07 s MC14053BF (MOTOROLA)  
 IC55 1-464-601-11 s CIRCUIT UNIT, VA  
 IC56 8-759-009-07 s MC14053BF (MOTOROLA)  
 IC60 1-808-743-11 s CIRCUIT UNIT, VA

IC70 8-759-030-16 s MC34182M (MOTOROLA)  
 IC71 8-752-015-81 s CX20158 (SONY)  
 IC72 8-752-015-81 s CX20158 (SONY)  
 IC101 8-759-708-09 s NJM78L09A (JRC)  
 IC102 8-759-700-65 s NJM79L05A (JRC)

IC103 8-759-937-61 s S-81230AG (SEIKO I AND E)  
 IC104 8-759-941-79 s S-80230AG (SEIKO I AND E)  
 IC105 8-759-908-15 s TL431CLP (TI)  
 IC106 8-759-708-05 s NJM78L05A (JRC)  
 IC107 8-759-708-08 s NJM78L08A (JRC)

IC108 8-759-700-65 s NJM79L05A (JRC)  
 IC109 8-759-700-67 s NJM79L08A (JRC)  
 IC110 8-759-708-05 s NJM78L05A (JRC)  
 IC111 8-759-708-08 s NJM78L08A (JRC)  
 IC112 8-759-700-65 s NJM79L05A (JRC)

IC113 8-759-700-67 s NJM79L08A (JRC)  
 IC114 8-759-908-15 s TL431CLP (TI)  
 IC115 8-759-700-67 s NJM79L08A (JRC)  
 IC116 8-759-708-05 s NJM78L05A (JRC)  
 IC117 8-759-700-65 s NJM79L05A (JRC)

IC201 8-759-012-02 s MC10H124M (MOTOROLA)  
 IC202 8-759-012-03 s MC10H131M (MOTOROLA)  
 IC203 8-759-011-98 s MC10H113M (MOTOROLA)  
 IC204 8-752-306-51 s CX23065A (SONY)  
 IC206 8-759-930-56 s SN74LS163ANS (TI)

IC501 8-759-700-95 s NJM1496M (JRC)  
 IC601 8-759-700-95 s NJM1496M (JRC)  
 IC701 8-759-008-52 s MC74HC123AF (MOTOROLA)  
 IC702 8-759-902-88 s SN74LS123NS (TI)  
 IC703 8-759-030-16 s MC34182M (MOTOROLA)

IC704 8-759-922-49 s SN74LS74ANS (TI)  
 IC705 8-759-030-16 s MC34182M (MOTOROLA)

L13 1-410-478-11 s MICRO 47  
 L14 1-410-478-11 s MICRO 47  
 L16 1-410-478-11 s MICRO 47  
 L17 1-410-478-11 s MICRO 47  
 L18 1-410-478-11 s MICRO 47

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

L19 1-410-478-11 s MICRO 47  
L20 1-410-470-11 s MICRO 10  
L21 1-410-470-11 s MICRO 10  
L22 1-410-478-11 s MICRO 47  
L100 1-421-329-00 s CHOKE

L101 1-421-329-00 s CHOKE  
L102 1-421-329-00 s CHOKE  
L103 1-421-329-00 s CHOKE  
L104 1-421-329-00 s CHOKE  
L350 1-410-470-11 s MICRO 10

L351 1-410-470-11 s MICRO 10  
L352 1-410-468-00 s MICRO 6.8  
L501 1-410-482-31 s MICRO 100  
L601 1-410-482-11 s MICRO 100  
L602 1-410-478-11 s MICRO 47

L603 1-410-478-11 s MICRO 47

Q1 8-729-201-27 s 2SC2715-Y  
Q2 8-729-312-22 s 2SA1122  
Q3 8-729-102-07 s 2SC2223  
Q4 8-729-201-27 s 2SC2715-Y  
Q5 8-729-102-07 s 2SC2223

Q6 8-729-201-27 s 2SC2715-Y  
Q7 8-729-312-22 s 2SA1122  
Q8 8-729-201-27 s 2SC2715-Y  
Q9 8-729-201-27 s 2SC2715-Y  
Q10 8-729-201-27 s 2SC2715-Y

Q11 8-729-201-27 s 2SC2715-Y  
Q12 8-729-102-07 s 2SC2223  
Q13 8-729-312-22 s 2SA1122  
Q14 8-729-312-22 s 2SA1122  
Q15 8-729-102-06 s 2SC2223

Q16 8-729-122-63 s 2SA1226  
Q17 8-729-102-06 s 2SC2223  
Q18 8-729-201-26 s 2SC2715  
Q25 8-729-201-27 s 2SC2715-Y  
Q601 8-729-201-27 s 2SC2715-Y

Q602 8-729-312-22 s 2SA1122  
Q603 8-729-201-27 s 2SC2715-Y  
Q604 8-729-201-27 s 2SC2715-Y  
Q605 8-729-201-27 s 2SC2715-Y

R3 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R4 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R5 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R6 1-216-654-11 s METAL CHIP 1.3k 0.50% 1/10W  
R14 1-216-687-11 s METAL CHIP 33k 0.50% 1/10W

R15 1-216-645-11 s METAL CHIP 560 0.50% 1/10W  
R18 1-216-638-11 s METAL CHIP 300 0.50% 1/10W  
R22 1-216-644-11 s METAL CHIP 510 0.50% 1/10W  
R23 1-216-644-11 s METAL CHIP 510 0.50% 1/10W  
R27 1-216-643-11 s METAL CHIP 470 0.50% 1/10W

R29 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
R30 1-216-649-11 s METAL CHIP 820 0.50% 1/10W  
R31 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
R33 1-216-654-11 s METAL CHIP 1.3k 0.50% 1/10W  
R39 1-216-639-11 s METAL CHIP 330 0.50% 1/10W

Ref.No. Parts No. SP Description

R40 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R41 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R42 1-216-654-11 s METAL CHIP 1.3k 0.50% 1/10W  
R48 1-216-645-11 s METAL CHIP 560 0.50% 1/10W  
R49 1-216-687-11 s METAL CHIP 33k 0.50% 1/10W

R52 1-216-687-11 s METAL CHIP 33k 0.50% 1/10W  
R53 1-216-645-11 s METAL CHIP 560 0.50% 1/10W  
R54 1-216-615-11 s METAL CHIP 33 0.50% 1/10W  
R55 1-216-627-11 s METAL CHIP 100 0.50% 1/10W  
R56 1-216-641-11 s METAL CHIP 390 0.50% 1/10W

R57 1-216-631-11 s METAL CHIP 150 0.50% 1/10W  
R58 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
R59 1-216-611-11 s METAL CHIP 22 0.50% 1/10W  
R60 1-216-687-11 s METAL CHIP 33k 0.50% 1/10W  
R61 1-216-645-11 s METAL CHIP 560 0.50% 1/10W

R62 1-216-627-11 s METAL CHIP 100 0.50% 1/10W  
R64 1-216-646-11 s METAL CHIP 620 0.50% 1/10W  
R65 1-216-634-11 s METAL CHIP 200 0.50% 1/10W  
R70 1-247-887-11 s CARBON 220k 5% 1/4W  
R71 1-216-631-11 s METAL CHIP 150 0.50% 1/10W

R72 1-216-631-11 s METAL CHIP 150 0.50% 1/10W  
R73 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
R74 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
R75 1-216-611-11 s METAL CHIP 22 0.50% 1/10W  
R77 1-216-631-11 s METAL CHIP 150 0.50% 1/10W

R86 1-216-646-11 s METAL CHIP 620 0.50% 1/10W  
R87 1-216-673-11 s METAL CHIP 8.2k 0.50% 1/10W  
R96 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R97 1-216-645-11 s METAL CHIP 560 0.50% 1/10W  
R98 1-216-639-11 s METAL CHIP 330 0.50% 1/10W

R99 1-216-645-11 s METAL CHIP 560 0.50% 1/10W  
R100 1-216-655-11 s METAL CHIP 1.5k 0.50% 1/10W  
R101 1-216-638-11 s METAL CHIP 300 0.50% 1/10W  
R102 1-216-665-11 s METAL CHIP 3.9k 0.50% 1/10W  
R103 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W

R104 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R105 1-216-681-11 s METAL CHIP 18k 0.50% 1/10W  
R106 1-216-685-11 s METAL CHIP 27k 0.50% 1/10W  
R107 1-216-660-11 s METAL CHIP 2.4k 0.50% 1/10W  
R108 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W

R119 1-216-669-11 s METAL CHIP 5.6k 0.50% 1/10W  
R120 1-216-669-11 s METAL CHIP 5.6k 0.50% 1/10W  
R121 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
R122 1-216-643-11 s METAL CHIP 470 0.50% 1/10W  
R123 1-216-671-11 s METAL CHIP 6.8k 0.50% 1/10W

R124 1-216-671-11 s METAL CHIP 6.8k 0.50% 1/10W  
R125 1-216-663-11 s METAL CHIP 3.3k 0.50% 1/10W  
R127 1-216-692-11 s METAL CHIP 51k 0.50% 1/10W  
R128 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
R129 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W

R156 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
R157 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
R158 1-216-673-11 s METAL CHIP 8.2k 0.50% 1/10W  
R162 1-216-693-11 s METAL CHIP 56k 0.50% 1/10W  
R163 1-216-682-11 s METAL CHIP 20k 0.50% 1/10W

R164 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
R167 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
R168 1-216-699-11 s METAL CHIP 100k 0.50% 1/10W  
R170 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
R172 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description				Ref.No.	Parts No.	SP	Description			
R180	1-216-687-11	s	METAL CHIP 33k	0.50Z	1/10W		R613	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W	
R181	1-216-645-11	s	METAL CHIP 560	0.50Z	1/10W		R614	1-216-659-11	s	METAL CHIP 2.2k	0.50Z	1/10W	
R182	1-216-627-11	s	METAL CHIP 100	0.50Z	1/10W		R615	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W	
R183	1-216-627-11	s	METAL CHIP 100	0.50Z	1/10W		R617	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W	
R187	1-216-611-11	s	METAL CHIP 22	0.50Z	1/10W		R619	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W	
R188	1-216-619-11	s	METAL CHIP 47	0.50Z	1/10W		R620	1-216-671-11	s	METAL CHIP 6.8k	0.50Z	1/10W	
R189	1-216-638-11	s	METAL CHIP 300	0.50Z	1/10W		R621	1-216-634-11	s	METAL CHIP 200	0.50Z	1/10W	
R190	1-216-638-11	s	METAL CHIP 300	0.50Z	1/10W		R622	1-216-666-11	s	METAL CHIP 4.3k	0.50Z	1/10W	
R191	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		R701	1-216-675-11	s	METAL CHIP 10k	0.50Z	1/10W	
R192	1-216-619-11	s	METAL CHIP 47	0.50Z	1/10W		R702	1-216-675-11	s	METAL CHIP 10k	0.50Z	1/10W	
R193	1-216-611-11	s	METAL CHIP 22	0.50Z	1/10W		R703	1-216-661-11	s	METAL CHIP 2.7k	0.50Z	1/10W	
R195	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		R704	1-216-655-11	s	METAL CHIP 1.5k	0.50Z	1/10W	
R196	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		R705	1-216-685-11	s	METAL CHIP 27k	0.50Z	1/10W	
R210	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		R706	1-216-647-11	s	METAL CHIP 680	0.50Z	1/10W	
R211	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		R707	1-216-679-11	s	METAL CHIP 15k	0.50Z	1/10W	
R212	1-216-629-11	s	METAL CHIP 120	0.50Z	1/10W		R708	1-216-643-11	s	METAL CHIP 470	0.50Z	1/10W	
R213	1-216-629-11	s	METAL CHIP 120	0.50Z	1/10W		R709	1-216-661-11	s	METAL CHIP 2.7k	0.50Z	1/10W	
R232	1-216-669-11	s	METAL CHIP 5.6k	0.50Z	1/10W		R710	1-216-667-11	s	METAL CHIP 4.7k	0.50Z	1/10W	
R234	1-216-657-11	s	METAL CHIP 1.8k	0.50Z	1/10W		R711	1-216-683-11	s	METAL CHIP 22k	0.50Z	1/10W	
3) R235	1-216-663-11	s	METAL CHIP 3.3k	0.50Z	1/10W		R712	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W	
4) R235	1-216-665-11	s	METAL CHIP 3.9k	0.50Z	1/10W		R713	1-216-679-11	s	METAL CHIP 15k	0.50Z	1/10W	
R236	1-216-668-11	s	METAL CHIP 5.1k	0.50Z	1/10W		R714	1-216-643-11	s	METAL CHIP 470	0.50Z	1/10W	
R237	1-216-683-11	s	METAL CHIP 22k	0.50Z	1/10W		R719	1-216-667-11	s	METAL CHIP 4.7k	0.50Z	1/10W	
R238	1-216-643-11	s	METAL CHIP 470	0.50Z	1/10W		R721	1-216-681-11	s	METAL CHIP 18k	0.50Z	1/10W	
R239	1-216-667-11	s	METAL CHIP 4.7k	0.50Z	1/10W		R722	1-216-655-11	s	METAL CHIP 1.5k	0.50Z	1/10W	
R244	1-216-692-11	s	METAL CHIP 51k	0.50Z	1/10W		R723	1-216-679-11	s	METAL CHIP 15k	0.50Z	1/10W	
R350	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		R724	1-216-643-11	s	METAL CHIP 470	0.50Z	1/10W	
R351	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W								
R352	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W								
R353	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W								
R354	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV1	1-237-512-21	s	VAR, CERMET	100		
R355	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV2	1-237-503-21	s	VAR, CERMET	10k		
R356	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		RV4	1-237-514-21	s	VAR, CERMET	500		
R357	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV5	1-237-514-21	s	VAR, CERMET	500		
R358	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV6	1-237-503-21	s	VAR, CERMET	10k		
R359	1-216-627-11	s	METAL CHIP 100	0.50Z	1/10W		RV7	1-237-514-21	s	VAR, CERMET	500		
R360	1-216-659-11	s	METAL CHIP 2.2k	0.50Z	1/10W		RV12	1-237-515-11	s	VAR, CERMET	1k		
R501	1-216-675-11	s	METAL CHIP 10k	0.50Z	1/10W		RV13	1-237-518-21	s	VAR, CERMET	10k		
R503	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV14	1-237-514-21	s	VAR, CERMET	500		
R505	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV17	1-237-518-21	s	VAR, CERMET	10k		
R508	1-216-627-11	s	METAL CHIP 100	0.50Z	1/10W		RV19	1-237-517-21	s	VAR, CERMET	5k		
R509	1-216-675-11	s	METAL CHIP 10k	0.50Z	1/10W		RV20	1-237-516-21	s	VAR, CERMET	2k		
R510	1-216-675-11	s	METAL CHIP 10k	0.50Z	1/10W		RV21	1-237-518-21	s	VAR, CERMET	10k		
R511	1-216-627-11	s	METAL CHIP 100	0.50Z	1/10W		RV22	1-237-517-21	s	VAR, CERMET	5k		
R512	1-216-671-11	s	METAL CHIP 6.8k	0.50Z	1/10W		RV25	1-237-519-21	s	VAR, CERMET	20k		
R513	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV26	1-273-520-21	s	VAR, CERMET	50k		
R514	1-216-659-11	s	METAL CHIP 2.2k	0.50Z	1/10W		RV27	1-237-518-21	s	VAR, CERMET	10k		
R522	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		RV28	1-237-517-21	s	VAR, CERMET	5k		
R523	1-216-649-11	s	METAL CHIP 820	0.50Z	1/10W		RV30	1-237-503-21	s	VAR, CERMET	10k		
R524	1-216-629-11	s	METAL CHIP 120	0.50Z	1/10W		RV31	1-237-503-21	s	VAR, CERMET	10k		
R525	1-216-629-11	s	METAL CHIP 120	0.50Z	1/10W		RV32	1-237-516-21	s	VAR, CERMET	2k		
R601	1-216-679-11	s	METAL CHIP 15k	0.50Z	1/10W		RV33	1-237-512-21	s	VAR, CERMET	100		
R603	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV34	1-237-512-21	s	VAR, CERMET	100		
R604	1-216-665-11	s	METAL CHIP 3.9k	0.50Z	1/10W		RV35	1-230-838-11	s	VAR, METAL FILM	200		
R605	1-216-651-11	s	METAL CHIP 1k	0.50Z	1/10W		RV36	1-230-838-11	s	VAR, METAL FILM	200		
R608	1-216-627-11	s	METAL CHIP 100	0.50Z	1/10W		RV40	1-237-503-21	s	VAR, CERMET	10k		
R609	1-216-675-11	s	METAL CHIP 10k	0.50Z	1/10W		RV41	1-230-838-21	s	VAR, METAL FILM	200		
R610	1-216-675-11	s	METAL CHIP 10k	0.50Z	1/10W		RV42	1-230-838-21	s	VAR, METAL FILM	200		
R611	1-216-627-11	s	METAL CHIP 100	0.50Z	1/10W		RV203	1-237-501-21	s	VAR, CERMET	2k		
R612	1-216-671-11	s	METAL CHIP 6.8k	0.50Z	1/10W		6) RV350	1-237-514-21	s	VAR, CERMET	500		

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# **IN-48P, EQ-26/28, EX-116**

Ref.No.	Parts No.	SP	Description
RV501	1-237-51 8-21	s	VAR, CERMET 10k
RV502	1-237-50 5-21	s	VAR, CERMET 50k
RV601	1-237-51 8-21	s	VAR, CERMET 10k
RV602	1-237-50 5-21	s	VAR, CERMET 50k
RV603	1-237-51 4-21	s	VAR, CERMET 500
RV701	1-237-51 7-21	s	VAR, CERMET 5k
RV702	1-237-51 7-21	s	VAR, CERMET 5k
RV703	1-237-51 7-21	s	VAR, CERMET 5k

S1	1-571-259-11	s	SLIDE
S2	1-571-259-11	s	SLIDE

TH1	1-800-202-XX	s	S-10K
TH2	1-800-202-XX	s	S-10K
5) TH201	1-800-200-00	s	S-3K
4) TH201	1-800-202-XX	s	S-10K

X1	1-567-891-11	s	17.734475MHz
X201	1-567-891-11	s	17.734475MHz

## **4) EQ-26 BOARD**

All the component parts on the EQ-26 board are supplied together when you order the DM-56P board.

1-628-676-11 o PRINTED CIRCUIT BOARD, EQ-26

CN1	1-566-473-11	o	PIN, SOCKET 1P
CN2	1-566-473-11	o	PIN, SOCKET 1P
CN3	1-566-473-11	o	PIN, SOCKET 1P
CN4	1-566-473-11	o	PIN, SOCKET 1P
CN5	1-566-473-11	o	PIN, SOCKET 1P
CN6	1-566-473-11	o	PIN, SOCKET 1P
15) CN7	1-566-473-11	o	PIN, SOCKET 1P
15) CN8	1-566-473-11	o	PIN, SOCKET 1P

Q1	8-729-102-08	s	2SC2223-F14
Q2	8-729-102-08	s	2SC2223-F14
Q3	8-729-102-08	s	2SC2223-F14
Q4	8-729-102-08	s	2SC2223-F14
Q5	8-729-102-08	s	2SC2223-F14
Q6	8-729-102-08	s	2SC2223-F14
Q7	8-729-102-08	s	2SC2223-F14
Q8	8-729-102-08	s	2SC2223-F14

RV1	1-228-457-00	s	VAR, CERMET 2k
RV2	1-228-457-00	s	VAR, CERMET 2k
RV3	1-228-457-00	s	VAR, CERMET 2k
RV4	1-228-457-00	s	VAR, CERMET 2k
RV5	1-228-457-00	s	VAR, CERMET 2k
RV6	1-228-457-00	s	VAR, CERMET 2k
RV7	1-228-457-00	s	VAR, CERMET 2k
RV8	1-228-457-00	s	VAR, CERMET 2k

Ref.No.	Parts No.	SP	Description
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## **4) EQ-28 BOARD**

All the component parts on the EQ-28 board are supplied together when you order the DM-56P board.

1-628-975-11 o PRINTED CIRCUIT BOARD, EQ-28

CN1	1-566-473-11	o	PIN, SOCKET 1P
CN2	1-566-473-11	o	PIN, SOCKET 1P
CN3	1-566-473-11	o	PIN, SOCKET 1P
CN4	1-566-473-11	o	PIN, SOCKET 1P
CN5	1-566-473-11	o	PIN, SOCKET 1P
CN6	1-566-473-11	o	PIN, SOCKET 1P
15) CN7	1-566-473-11	o	PIN, SOCKET 1P
15) CN8	1-566-473-11	o	PIN, SOCKET 1P

Q1	8-729-102-08	s	2SC2223-F14
Q2	8-729-102-08	s	2SC2223-F14
Q3	8-729-102-08	s	2SC2223-F14
Q4	8-729-102-08	s	2SC2223-F14
Q5	8-729-102-08	s	2SC2223-F14
Q6	8-729-102-08	s	2SC2223-F14
Q7	8-729-102-08	s	2SC2223-F14
Q8	8-729-102-08	s	2SC2223-F14

RV1	1-228-457-00	s	VAR, CERMET 2k
RV2	1-228-457-00	s	VAR, CERMET 2k
RV3	1-228-457-00	s	VAR, CERMET 2k
RV4	1-228-457-00	s	VAR, CERMET 2k
RV5	1-228-457-00	s	VAR, CERMET 2k
RV6	1-228-457-00	s	VAR, CERMET 2k
RV7	1-228-457-00	s	VAR, CERMET 2k
RV8	1-228-457-00	s	VAR, CERMET 2k

## **EX-116 BOARD**

A-6729-474-A s MOUNTED CIRCUIT BOARD, EX-116

3) CN1	1-506-748-21	o	DIN 96P
4) CN1	1-506-748-11	o	DIN 96P
3) CN2	1-506-748-21	o	DIN 96P
4) CN2	1-506-748-11	o	DIN 96P
3) CN3	1-563-341-21	o	HOUSING, DIN 96P
4) CN3	1-563-341-11	o	HOUSING, DIN 96P
3) CN4	1-563-341-21	o	HOUSING, DIN 96P
4) CN4	1-563-341-11	o	HOUSING, DIN 96P

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

EX-134 BOARD

A-6729-475-A s MOUNTED CIRCUIT BOARD, EX-134

3) CN1 1-506-748-21 o DIN 96P  
 4) CN1 1-506-748-11 o DIN 96P  
 3) CN2 1-563-341-21 o HOUSING, DIN 96P  
 4) CN2 1-563-341-11 o HOUSING, DIN 96P

EX-151 BOARD

A-6729-476-A s MOUNTED CIRCUIT BOARD, EX-151

3) CN1 1-506-748-21 o DIN 96P  
 4) CN1 1-506-748-11 o DIN 96P  
 3) CN2 1-506-748-21 o DIN 96P  
 4) CN2 1-506-748-11 o DIN 96P  
 3) CN3 1-563-341-21 o HOUSING, DIN 96P  
 4) CN3 1-563-341-11 o HOUSING, DIN 96P  
 1-563-339-11 o HOUSING, DIN 48P

FL-61 BOARD

All the component parts on the FL-61 board are supplied together when you order the AFM-1 board.

1-624-393-11 o PRINTED CIRCUIT BOARD, FL-61

CN101 1-564-983-11 s 8P  
 CN102 1-506-653-11 s 5P

FL109 1-236-122-11 s LOW-PASS 25kHz

R101 1-216-658-11 s METAL CHIP 2k 0.50% 1/10W  
 R102 1-216-658-11 s METAL CHIP 2k 0.50% 1/10W

HC-11 BOARD

1-622-595-11 o PRINTED CIRCUIT BOARD, HC-11

CPI 1-548-152-11 o HOURS METER

Ref.No. Parts No. SP Description

HP-33 BOARD

1-622-590-13 o PRINTED CIRCUIT BOARD, HP-33

C2 1-124-236-00 s ELECT 47 20% 16V  
 C3 1-124-236-00 s ELECT 47 20% 16V

IC1 8-759-745-56 s NJM4556D (JRC)  
 IC2 8-759-900-72 s NE5532P (SIGNETICS)

J1 1-507-863-31 s LARGE TYPE

R6 1-247-739-11 s CARBON 100 5% 1/2W  
 R10 1-247-739-11 s CARBON 100 5% 1/2W

KY-96B BOARD

All the component parts on the KY-96B board are supplied together when you order the key chassis ass'y.

C1 1-124-252-00 s ELECT 0.33 20% 50V  
 C2 1-124-252-00 s ELECT 0.33 20% 50V  
 C4 1-126-176-11 s ELECT 220 10V  
 C6 1-126-176-11 s ELECT 220 10V  
 C13 1-124-462-00 s ELECT 10 20% 16V

C14 1-162-210-31 s CERAMIC 30pF  
 C15 1-162-210-31 s CERAMIC 30pF  
 C16 1-162-210-31 s CERAMIC 30pF  
 C17 1-162-210-31 s CERAMIC 30pF  
 C18 1-126-176-11 s ELECT 220 10V

C19 1-126-176-11 s ELECT 220 10V  
 C20 1-124-462-00 s ELECT 10 20% 16V  
 C21 1-124-462-00 s ELECT 10 20% 16V  
 C22 1-124-462-00 s ELECT 10 20% 16V  
 C23 1-124-462-00 s ELECT 10 20% 16V

C24 1-124-462-00 s ELECT 10 20% 16V  
 C25 1-124-462-00 s ELECT 10 20% 16V  
 C26 1-124-462-00 s ELECT 10 20% 16V  
 C34 1-124-462-00 s ELECT 10 20% 16V  
 C35 1-124-462-00 s ELECT 10 20% 16V

C37 1-124-462-00 s ELECT 10 20% 16V  
 C38 1-124-462-00 s ELECT 10 20% 16V  
 C39 1-124-462-00 s ELECT 10 20% 16V  
 C40 1-124-462-00 s ELECT 10 20% 16V  
 C41 1-124-462-00 s ELECT 10 20% 16V

C42 1-124-462-00 s ELECT 10 20% 16V  
 C43 1-124-462-00 s ELECT 10 20% 16V  
 C44 1-124-252-00 s ELECT 0.33 20% 50V  
 C45 1-126-176-11 s ELECT 220 10V  
 C46 1-124-462-00 s ELECT 10 20% 16V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

D1	8-719-911-19	s	1SS119
D2	8-719-911-19	s	1SS119
D3	8-719-911-19	s	1SS119
D4	8-719-109-51	s	RD2.0ES-B2
D5	8-719-109-51	s	RD2.0ES-B2
D6	8-719-109-51	s	RD2.0ES-B2
D7	8-719-109-51	s	RD2.0ES-B2
D8	8-719-109-51	s	RD2.0ES-B2
D9	8-719-109-51	s	RD2.0ES-B2
D10	8-719-109-51	s	RD2.0ES-B2
D11	8-719-911-19	s	1SS119
D12	8-719-911-19	s	1SS119
D13	8-719-911-19	s	1SS119
D14	8-719-911-19	s	1SS119
D15	8-719-911-19	s	1SS119
D16	8-719-911-19	s	1SS119
D17	8-719-911-19	s	1SS119
D18	8-719-911-19	s	1SS119
D21	8-719-911-19	s	1SS119
D27	8-719-911-19	s	1SS119
D28	8-719-911-19	s	1SS119
D30	8-719-911-19	s	1SS119
D31	8-719-911-19	s	1SS119
D32	8-719-911-19	s	1SS119
D35	8-719-911-19	s	1SS119
D36	8-719-911-19	s	1SS119
D37	8-719-911-19	s	1SS119
D38	8-719-911-19	s	1SS119
D39	8-719-911-19	s	1SS119
D40	8-719-911-19	s	1SS119
D41	8-719-911-19	s	1SS119
D42	8-719-911-19	s	1SS119
D49	8-719-802-11	s	TLUG154
D51	8-719-939-39	s	GL-5HD8
D55	8-719-939-39	s	GL-5HD8
D56	8-719-939-39	s	GL-5HD8
D57	8-719-802-11	s	TLUG154
D58	8-719-939-39	s	GL-5HD8
D59	8-719-802-11	s	TLUG154
IC1	8-759-632-07	s	M5237L (MITSUBISHI)
IC2	8-759-278-05	s	NJM78L05A (JRC)
IC3	8-759-937-29	s	MB88201H-539N (FUJITSU)
IC4	8-759-605-23	s	M50747H-601SP (MITSUBISHI)
IC5	8-759-645-16	s	M54516P (MITSUBISHI)
IC6	8-759-645-16	s	M54516P (MITSUBISHI)
IC7	8-759-645-16	s	M54516P (MITSUBISHI)
IC8	8-759-278-05	s	NJM78L05A (JRC)
L1	1-407-488-00	s	MICRO 470
L2	1-407-488-00	s	MICRO 470
Q2	8-729-275-42	s	2SC2754
Q3	8-729-275-42	s	2SC2754
Q4	8-729-904-51	s	DTB123EK
Q5	8-729-904-51	s	DTB123EK
Q6	8-729-904-51	s	DTB123EK

Ref.No. Parts No. SP Description

Q7	8-729-904-51	s	DTB123EK
Q8	8-729-904-51	s	DTB123EK
Q9	8-729-904-51	s	DTB123EK
Q10	8-729-904-51	s	DTB123EK
Q12	8-729-133-34	s	2SB733
Q13	8-729-133-34	s	2SB733
Q14	8-729-133-34	s	2SB733
Q15	8-729-133-34	s	2SB733
Q16	8-729-133-34	s	2SB733
Q17	8-729-133-34	s	2SB733
Q18	8-729-133-34	s	2SB733
Q19	8-729-133-34	s	2SB733
Q20	8-729-900-67	s	DTA124XS
Q21	8-729-900-67	s	DTA124XS
Q22	8-729-900-67	s	DTA124XS
Q23	8-729-900-67	s	DTA124XS
Q24	8-729-900-67	s	DTA124XS
Q25	8-729-900-67	s	DTA124XS
Q26	8-729-900-67	s	DTA124XS
Q27	8-729-900-67	s	DTA124XS
Q28	8-729-900-67	s	DTA124XS
Q29	8-729-900-67	s	DTA124XS
Q30	8-729-900-67	s	DTA124XS
Q31	8-729-900-67	s	DTA124XS
Q32	8-729-900-67	s	DTA124XS
Q33	8-729-900-67	s	DTA124XS
Q34	8-729-199-92	s	2SD999
Q35	8-729-900-51	s	DTA114TK
Q36	8-729-199-92	s	2SD999
Q37	8-729-900-51	s	DTA114TK
Q38	8-729-199-92	s	2SD999
Q39	8-729-900-51	s	DTA114TK
Q40	8-729-199-92	s	2SD999
Q41	8-729-900-51	s	DTA114TK
Q42	8-729-199-92	s	2SD999
Q43	8-729-900-51	s	DTA114TK
Q44	8-729-199-92	s	2SD999
Q45	8-729-900-51	s	DTA114TK
Q46	8-729-199-92	s	2SD999
Q61	8-729-900-51	s	DTA114TK
Q62	8-729-199-92	s	2SD999
Q63	8-729-900-51	s	DTA114TK
Q64	8-729-199-92	s	2SD999
Q67	8-729-900-51	s	DTA114TK
Q68	8-729-199-92	s	2SD999
Q69	8-729-900-51	s	DTA114TK
Q70	8-729-199-92	s	2SD999
Q71	8-729-900-51	s	DTA114TK
Q72	8-729-199-92	s	2SD999
Q73	8-729-900-51	s	DTA114TK
Q74	8-729-199-92	s	2SD999
Q75	8-729-900-51	s	DTA114TK
Q76	8-729-199-92	s	2SD999
Q77	8-729-900-51	s	DTA114TK
Q78	8-729-199-92	s	2SD999
Q79	8-729-900-51	s	DTA114TK
Q80	8-729-199-92	s	2SD999
Q81	8-729-271-22	s	2SC2712-G
Q82	8-729-271-22	s	2SC2712-G
Q83	8-729-900-51	s	DTA114TK
Q84	8-729-199-92	s	2SD999

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
R2	1-217-666-31	s	SHORT 0.01 1/6W
R63	1-247-700-11	s	CARBON 100 5% 1/4W
R67	1-247-700-11	s	CARBON 100 5% 1/4W
R68	1-247-700-11	s	CARBON 100 5% 1/4W
R69	1-247-700-11	s	CARBON 100 5% 1/4W
R70	1-247-700-11	s	CARBON 100 5% 1/4W
R71	1-247-700-11	s	CARBON 100 5% 1/4W
R141	1-247-702-11	s	CARBON 150 5% 1/4W
R144	1-247-702-11	s	CARBON 150 5% 1/4W
R147	1-247-702-11	s	CARBON 150 5% 1/4W
R150	1-247-702-11	s	CARBON 150 5% 1/4W
R153	1-247-702-11	s	CARBON 150 5% 1/4W
R156	1-247-702-11	s	CARBON 150 5% 1/4W

S1	1-571-169-11	s	TACTIL
S2	1-571-169-21	s	TACTIL
S3	1-571-167-41	s	TACTIL
S4	1-571-167-31	s	TACTIL
S5	1-571-167-21	s	TACTIL
S6	1-571-167-11	s	TACTIL
S7	1-571-167-11	s	TACTIL
S10	1-571-280-11	s	TACTIL
S16	1-571-167-11	s	TACTIL
S17	1-571-167-11	s	TACTIL
S19	1-571-167-11	s	TACTIL
S20	1-516-995-00	s	LEVER SLIDE
S21	1-571-280-11	s	TACTIL
S22	1-571-280-11	s	TACTIL
S23	1-571-280-11	s	TACTIL

S24	1-571-280-11	s	TACTIL
S25	1-571-280-11	s	TACTIL
S26	1-516-961-00	s	LEVER SLIDE

X1	1-567-869-11	s	VIBRATOR 9.83MHz
X2	1-567-192-11	s	OSCILLATOR 4.00MHz

**KY-107 BOARD**

All the component parts on the KY-107 board are supplied together when you order the key chassis ass'y.

1-622-554-11 o PRINTED CIRCUIT BOARD, KY-107

CN4 1-535-698-11 o WIRE, JUMPER

S32	1-552-539-00	s	KEY BOARD
S33	1-552-539-00	s	KEY BOARD
S34	1-552-539-00	s	KEY BOARD

Ref.No. Parts No. SP Description

**MB-191B BOARD**

- 17) A-6725-609-A o MOUNTED CIRCUIT BOARD, MB-191B  
 18) A-6725-609-B o MOUNTED CIRCUIT BOARD, MB-191B

1-562-210-11 s CONTACT

3)	CN101	1-563-337-31	s	HOUSING, DIN 96P
4)	CN101	1-565-910-11	s	HOUSING, DIN 96P
3)	CN102	1-563-337-31	s	HOUSING, DIN 96P
4)	CN102	1-565-910-11	s	HOUSING, DIN 96P
3)	CN103	1-563-337-31	s	HOUSING, DIN 96P
4)	CN103	1-565-910-11	s	HOUSING, DIN 96P
3)	CN105	1-563-337-31	s	HOUSING, DIN 96P
4)	CN105	1-565-910-11	s	HOUSING, DIN 96P
3)	CN106	1-563-335-11	s	HOUSING, DIN 48P
4)	CN106	1-565-909-11	s	HOUSING, DIN 48P
3)	CN107	1-563-337-31	s	HOUSING, DIN 96P
4)	CN107	1-565-910-11	s	HOUSING, DIN 96P
3)	CN108	1-563-335-11	s	HOUSING, DIN 48P
4)	CN108	1-565-909-11	s	HOUSING, DIN 48P
3)	CN109	1-563-337-31	s	HOUSING, DIN 96P
4)	CN109	1-565-910-11	s	HOUSING, DIN 96P
3)	CN110	1-563-335-11	s	HOUSING, DIN 48P
4)	CN110	1-565-909-11	s	HOUSING, DIN 48P
3)	CN111	1-563-337-31	s	HOUSING, DIN 96P
4)	CN111	1-565-910-11	s	HOUSING, DIN 96P
	CN123	1-566-342-11	s	30P
	CN125	1-566-392-21	o	4P
	CN130	1-564-683-11	o	13P
	CN137	1-566-398-21	s	16P
3)	CN202	1-563-337-31	s	HOUSING, DIN 96P
4)	CN202	1-565-910-11	s	HOUSING, DIN 96P
3)	CN204	1-563-337-31	s	HOUSING, DIN 96P
4)	CN204	1-565-910-11	s	HOUSING, DIN 96P
3)	CN205	1-563-337-31	s	HOUSING, DIN 96P
4)	CN205	1-565-910-11	s	HOUSING, DIN 96P
3)	CN206	1-563-337-31	s	HOUSING, DIN 96P
4)	CN206	1-565-910-11	s	HOUSING, DIN 96P
3)	CN207	1-563-337-31	s	HOUSING, DIN 96P
4)	CN207	1-565-910-11	s	HOUSING, DIN 96P
3)	CN208	1-563-337-31	s	HOUSING, DIN 96P
4)	CN208	1-565-910-11	s	HOUSING, DIN 96P
3)	CN209	1-563-337-31	s	HOUSING, DIN 96P
4)	CN209	1-565-910-11	s	HOUSING, DIN 96P
3)	CN210	1-563-337-31	s	HOUSING, DIN 96P
4)	CN210	1-565-910-11	s	HOUSING, DIN 96P

CN211	1-566-312-11	s	50P
CN212	1-566-312-11	s	50P
CN213	1-564-199-00	o	6P
CN214	1-564-201-00	o	10P
CN215	1-566-405-11	o	30P

CN225	1-566-405-11	o	30P
CN236	1-566-392-21	o	4P
CN237	1-566-405-21	o	30P
CN431	1-562-833-11	o	7P
CN432	1-562-800-11	o	9P

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

**MB-192 BOARD**

A-6725-584-A o MOUNTED CIRCUIT BOARD, MB-192

3) CN301 1-563-337-31 s HOUSING, DIN 96P  
4) CN301 1-565-910-11 s HOUSING, DIN 96P  
3) CN302 1-563-337-31 s HOUSING, DIN 96P  
4) CN302 1-565-910-11 s HOUSING, DIN 96P  
3) CN303 1-563-337-31 s HOUSING, DIN 96P  
4) CN303 1-565-910-11 s HOUSING, DIN 96P  
3) CN304 1-563-337-31 s HOUSING, DIN 96P  
4) CN304 1-565-910-11 s HOUSING, DIN 96P  
CN306 1-566-343-11 o 40P  
CN307 1-566-496-11 o 50P  
CN308 1-566-496-11 o 50P  
CN310 1-566-311-11 s 10P  
CN316 1-508-906-00 o 10P

**17) NR-25 BOARD**

All of the component parts on the NR-25 Board are supplied together when you order the TBC-8P Board.

1-624-023-12 o PRINTED CIRCUIT BOARD, NR-25

C701 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C702 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C703 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C704 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C705 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C706 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C707 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C708 1-163-033-00 s CERAMIC CHIP 0.022 50V  
C709 1-163-033-00 s CERAMIC CHIP 0.022 50V

CN700 1-564-410-11 s HEADER 40P  
CN701 1-559-614-11 o FLAT CABLE (40 CORE)

IC701 8-759-947-00 s CXD1328Q (SONY)  
IC702 8-752-322-72 s CXK1202S (SONY)  
IC703 8-752-322-72 s CXK1202S (SONY)  
IC704 8-752-322-72 s CXK1202S (SONY)  
IC705 8-759-205-16 s TC74HC161F (TOSHIBA)  
IC706 8-759-205-16 s TC74HC161F (TOSHIBA)  
IC707 8-751-205-22 s TC74HC240F (TOSHIBA)  
IC708 8-759-205-30 s TC74HC273F (TOSHIBA)  
IC709 8-759-207-25 s TC74HC163F (TOSHIBA)

Ref.No. Parts No. SP Description

**18) NR-32 BOARD**

All the component parts on the NR-32 board are supplied together when you order the TBC-12P board.

1-629-463-11 o PRINTED CIRCUIT BOARD, NR-32

C701 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C702 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C703 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C704 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C705 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C706 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C707 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C708 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C709 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C710 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C712 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C713 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C714 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C715 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C716 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C717 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C720 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C721 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C722 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C723 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C724 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C725 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C727 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C729 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C730 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

CP701 1-567-979-11 s CRYSTAL VCO 27MHz  
CP702 1-577-134-11 s CRYSTAL VCO 13.5MHz

CV701 1-141-320-00 s TRIMMER, CERAMIC 45pF

IC701 8-759-947-00 s CXD1328Q (SONY)  
IC702 8-752-322-72 s CXK1202S (SONY)  
IC703 8-752-322-72 s CXK1202S (SONY)  
IC704 8-752-322-72 s CXK1202S (SONY)  
IC705 8-759-205-16 s TC74HC161F (TOSHIBA)

IC706 8-759-205-16 s TC74HC161F (TOSHIBA)  
IC707 8-759-205-22 s TC74HC240F (TOSHIBA)  
IC708 8-759-203-21 s TC74HC273P (TOSHIBA)  
IC709 8-759-205-16 s TC74HC161P (TOSHIBA)  
IC710 8-752-306-51 s CX2306 5A (SONY)

IC711 8-752-306-51 s CX2306 5A (SONY)  
IC712 8-759-904-80 s 74F04PC (FSC)  
IC713 8-759-904-84 s 74F74PC (FSC)  
IC714 8-759-230-23 s CXD1045AQ (SONY)  
IC715 8-759-230-23 s CXD1045AQ (SONY)

IC716 8-759-907-81 s SN74LS221NS (TI)  
IC717 8-759-904-83 s 74F32PC (FSC)  
IC718 8-759-906-71 s 74F175PC (FSC)  
IC719 8-759-915-93 s 74F163APC (FSC)  
IC720 8-759-925-90 s SN74HC74NS (TI)

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

IC721 8-759-930-57 s SN74LS164NS (TI)  
IC725 8-759-901-58 s SN74LS158N (TI)  
IC726 8-759-930-57 s SN74LS164NS (TI)

17) R748 1-216-672-11 s METAL CHIP 7.5k 0.50% 1/10W  
18) R748 1-216-665-11 s METAL CHIP 3.9k 0.50% 1/10W  
17) R749 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
18) R749 1-216-663-11 s METAL CHIP 3.3k 0.50% 1/10W

RV701 1-230-521-11 s VAR, METAL 2.2k  
RV702 1-230-521-11 s VAR, METAL 2.2k

### 3) PC-32 BOARD

1-622-603-11 o PRINTED CIRCUIT BOARD, PC-32

D1 8-719-800-81 s TLP801A

### PC-33 BOARD

1-622-604-11 o PRINTED CIRCUIT BOARD, PC-33

D1 8-719-800-81 s TLP801A

### PC-41 BOARD

1-623-267-11 o PRINTED CIRCUIT BOARD, PC-41

D1 8-719-800-81 s TLP801A

### 4) PC-47 BOARD

1-628-786-11 o PRINTED CIRCUIT BOARD, PC-47

D1 8-719-800-81 s TLP801A

### PD-35 BOARD

1-622-596-11 o PRINTED CIRCUIT BOARD, PD-35

CN852 1-508-900-00 o PIN 2P

Ref.No. Parts No. SP Description

### PT-9 BOARD

All the component parts on the PT-9 board are supplied together when you order the key chassis ass'y.

1-605-018-11 o PRINTED CIRCUIT BOARD, PT-9

Q1 8-729-882-52 s 2SB825-R

### PTC-15 BOARD

1-622-597-11 o PRINTED CIRCUIT BOARD, PTC-15

D1 8-719-800-81 s TLP801A  
D2 8-719-800-81 s TLP801A

### PTC-20 BOARD

1-622-598-11 o PRINTED CIRCUIT BOARD, PTC-20

Q1 8-729-116-45 s PH110  
Q2 8-729-116-45 s PH110  
Q3 8-729-116-45 s PH110

### PTC-21 BOARD

1-622-599-11 o PRINTED CIRCUIT BOARD, PTC-21

D1 8-719-800-81 s TLP801A  
D2 8-719-800-81 s TLP801A

### PTC-31 BOARD

1-622-607-11 o PRINTED CIRCUIT BOARD, PTC-31

D1 8-719-941-47 s GP-2S05

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# PTC-32/36, RE-28/36

Ref.No. Parts No. SP Description

## PTC-32 BOARD

All the component parts on the PTC-32 board are supplied together when you order the key chassis ass'y.

1-622-638-11 o PRINTED CIRCUIT BOARD, PTC-32

C1 1-124-234-00 s ELECT 22 20% 10V

CN4 1-562-151-11 o 6P

PH1 8-719-800-81 s TLP801A

## PTC-36 BOARD

1-622-601-11 o PRINTED CIRCUIT BOARD, PTC-36

D1 8-719-123-69 s SE310  
D2 8-719-123-69 s SE310  
D3 8-719-123-69 s SE310

R1 1-249-409-11 s CARBON 220 5% 1/4W  
R2 1-249-409-11 s CARBON 220 5% 1/4W  
R3 1-249-409-11 s CARBON 220 5% 1/4W

## RE-28 BOARD

A-6715-354-A o MOUNTED CIRCUIT BOARD, RE-28

C9 1-124-360-00 s ELECT 1000 20% 16V

CN814 1-508-901-00 o M 3P  
CN823 1-508-949-00 o M 12P

D1 8-719-200-02 s 10E2

IC1 8-759-108-77 s CX877 (SONY)

Q1 8-729-177-43 s 2SD774  
Q2 8-729-376-84 s 2SA768-G  
Q3 8-729-177-43 s 2SD774  
Q4 8-729-247-33 s 2SA473  
Q5 8-729-103-43 s 2SB734\*(28)

Ref.No. Parts No. SP Description

Q6 8-729-177-43 s 2SD774

R1 1-247-887-00 s CARBON 220k 5% 1/4W

A R5 1-216-389-11 s METAL OXIDE 1 5% 3W  
R10 1-215-866-11 s METAL OXIDE 330 5% 1W

R12 1-247-887-00 s CARBON 220k 5% 1/4W

A R13 1-216-386-11 s METAL OXIDE 0.56 5% 3W

R14 1-247-739-11 s CARBON 100 5% 1/2W

R15 1-247-739-11 s CARBON 100 5% 1/2W

A R16 1-216-389-11 s METAL OXIDE 1 5% 3W

## RE-36 BOARD

A-6715-361-A o MOUNTED CIRCUIT BOARD, RE-36

C103 1-162-726-11 s CERAMIC 470pF 1% 50V  
C104 1-162-726-11 s CERAMIC 470pF 1% 50V  
C106 1-124-462-00 s ELECT 10 20% 16V  
C203 1-162-726-11 s CERAMIC 470pF 1% 50V  
C204 1-162-726-11 s CERAMIC 470pF 1% 50V

C206 1-124-462-00 s ELECT 10 20% 16V

CN802 1-563-233-11 o F.P.C 13P  
CN805 1-562-708-11 o SOCKET 13P  
CN806 1-508-901-00 o M 3P  
CN807 1-506-477-11 o 12P

D1 8-719-200-02 s 10E2  
D2 8-719-200-02 s 10E2

IC101 8-759-705-62 s NJM4562D-D (JRC)  
IC201 8-759-705-62 s NJM4562D-D (JRC)

L1 1-459-155-00 s 45 (WITH CORE)  
L2 1-459-155-00 s 45 (WITH CORE)

Q1 8-729-114-11 s 2SA1141  
Q2 8-729-177-43 s 2SD774  
Q3 8-729-103-43 s 2SB734\*(28)  
Q4 8-729-102-57 s 2SC3012  
Q101 8-729-217-33 s 2SC1173

Q102 8-729-247-33 s 2SA473  
Q201 8-729-217-33 s 2SC1173  
Q202 8-729-247-33 s 2SA473

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

## Ref.No. Parts No. SP Description

△ R2	1-215-864-00	s	METAL OXIDE 150	5%	1W
R5	1-215-889-00	s	METAL OXIDE 330	5%	2W
R101	1-215-863-11	s	METAL OXIDE 100	5%	1W
R102	1-215-863-11	s	METAL OXIDE 100	5%	1W
R103	1-216-365-00	s	METAL OXIDE 0.47	5%	2W

R108	1-247-895-00	s	CARBON	470k	5% 1/4W
R111	1-247-895-00	s	CARBON	470k	5% 1/4W
7) R113	1-247-887-00	s	CARBON	220k	5% 1/4W

△ R201	1-215-863-11	s	METAL OXIDE 100	5%	1W
R202	1-215-863-11	s	METAL OXIDE 100	5%	1W

△ R203	1-216-365-00	s	METAL OXIDE 0.47	5%	2W
R208	1-247-895-00	s	CARBON	470k	5% 1/4W
R211	1-247-895-00	s	CARBON	470k	5% 1/4W
7) R213	1-247-887-00	s	CARBON	220k	5% 1/4W

RM-40 BOARD

1-622-605-11 o PRINTED CIRCUIT BOARD, RM-40

C1	1-102-363-00	s	CERAMIC	0.001	50V
C2	1-102-363-00	s	CERAMIC	0.001	50V

CN3 1-562-708-11 o 13P

RM-57 BOARD

1-624-153-13 o PRINTED CIRCUIT BOARD, RM-57

C1 1-124-120-11 s ELECT 220 20% 16V

CN450	1-559-263-11	o	WIRE ASS'Y, FLAT TYPE (40 CORE)
CN451	1-564-743-11	o	13P
CN452	1-508-933-00	o	2P
CN453	1-561-028-00	s	36P
CN454	1-563-890-11	s	SOCKET, D-SUB 9P
CN455	1-563-890-11	s	SOCKET, D-SUB 9P
CN456	1-566-441-11	s	D-SUB 15P

FB1	1-535-178-00	s	FERRITE BEAD
FB2	1-535-178-00	s	FERRITE BEAD

△ R1	1-215-906-11	s	METAL OXIDE 15	5%	3W
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## Ref.No. Parts No. SP Description

SE-57 BOARD

A-6715-353-A o MOUNTED CIRCUIT BOARD, SE-57

C1	1-162-726-11	s	CERAMIC	470pF	1% 50V
C2	1-162-726-11	s	CERAMIC	470pF	1% 50V
C3	1-136-683-11	s	MYLAR	0.0056	2% 100V

D1	8-719-911-19	s	1S8119
D2	8-719-911-19	s	1S8119
D3	8-719-911-19	s	1S8119

IC1	8-759-729-03	s	NJM2903D (JRC)
IC2	8-759-245-38	s	TC4538BP (TOSHIBA)
IC3	8-759-145-58	s	uPC4558C (NEC)

Q1	8-729-178-55	s	2SC2785-E
Q2	8-729-820-14	s	2SD1913-RS
Q3	8-729-111-67	s	2SB1094L
Q4	8-729-178-55	s	2SC2785-E
Q5	8-729-117-54	s	2SA1175

Q6	8-729-178-55	s	2SC2785-E
Q7	8-729-178-55	s	2SC2785-E

R5	1-247-895-00	s	CARBON	470k	5% 1/4W
R14	1-247-887-00	s	CARBON	220k	5% 1/4W
R15	1-247-887-00	s	CARBON	220k	5% 1/4W
R29	1-216-347-11	s	METAL OXIDE 0.68	5%	1W
R30	1-216-347-11	s	METAL OXIDE 0.68	5%	1W

SV-82A BOARD

IC109 8-759-734-36 s C256A-BVW75P V1.20SV

A-6715-394-A o MOUNTED CIRCUIT BOARD, SV-82A

C1	1-162-887-11	s	CERAMIC	470pF	5% 50V
C2	1-162-887-11	s	CERAMIC	470pF	5% 50V
C7	1-162-887-11	s	CERAMIC	470pF	5% 50V
C9	1-162-887-11	s	CERAMIC	470pF	5% 50V
C106	1-124-598-11	s	ELECT	22	20% 25V

C110	1-124-598-11	s	ELECT	22	20% 25V
C111	1-124-462-00	s	ELECT	10	20% 16V
C112	1-124-462-00	s	ELECT	10	20% 16V
C125	1-161-463-00	s	CERAMIC	220pF	5% 50V
C127	1-161-463-00	s	CERAMIC	220pF	5% 50V

C128	1-161-463-00	s	CERAMIC	220pF	5% 50V
C131	1-162-883-11	s	CERAMIC	220pF	5% 50V
C308	1-124-224-00	s	ELECT	47	20% 6.3V
C309	1-124-224-00	s	ELECT	47	20% 6.3V
C310	1-124-236-00	s	ELECT	47	20% 10V

C311 1-124-236-00 s ELECT 47 20% 10V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".



Ref.No. Parts No. SP Description

3) CN206 1-506-748-31 s DIN 96P  
 4) CN206 1-506-748-11 s DIN 96P

4) D1 8-719-911-19 s 1SS119  
 4) D2 8-719-911-19 s 1SS119  
 D101 8-719-911-19 s 1SS119  
 D102 8-719-911-19 s 1SS119  
 D103 8-719-911-19 s 1SS119

D104 8-719-911-19 s 1SS119  
 D105 8-719-911-19 s 1SS119  
 D106 8-719-911-19 s 1SS119  
 D107 8-719-911-19 s 1SS119  
 D108 8-719-911-19 s 1SS119

D109 8-719-911-19 s 1SS119  
 D110 8-719-911-19 s 1SS119  
 D111 8-719-911-19 s 1SS119  
 D114 8-719-911-19 s 1SS119

IC1 8-759-113-55 s uPD71054GB (NEC)  
 IC2 8-759-113-55 s uPD71054GB (NEC)  
 IC4 8-759-113-55 s uPD71054GB (NEC)  
 IC5 8-759-113-55 s uPD71054GB (NEC)  
 IC6 8-759-938-83 s CF77074NT (TI)

IC7 8-759-938-83 s CF77074NT (TI)  
 IC8 8-759-938-83 s CF77074NT (TI)  
 IC9 8-759-205-06 s TC74HC74F (TOSHIBA)  
 IC10 8-759-926-97 s SN74HC4024NS (TI)  
 IC11 8-759-205-00 s TC74HC14F (TOSHIBA)

IC12 8-759-205-00 s TC74HC14F (TOSHIBA)  
 IC14 8-759-208-11 s TC4053BF (TOSHIBA)  
 IC101 8-759-926-49 s SN74HC245NS (TI)  
 IC102 8-759-205-23 s TC74HC244F (TOSHIBA)  
 IC103 8-759-208-09 s TC4052BF (TOSHIBA)

IC104 8-759-204-97 s TC74HC04F (TOSHIBA)  
 IC105 8-752-323-64 s CXK5816M-12L (SONY)  
 IC106 8-759-205-09 s TC74HC138F (TOSHIBA)  
 IC107 8-759-205-09 s TC74HC138F (TOSHIBA)  
 IC108 8-759-205-10 s TC74HC139F (TOSHIBA)

IC110 8-759-205-20 s TC74HC193F (TOSHIBA)  
 IC111 8-759-153-81 s uPD78310ACW (NEC)  
 IC112 8-759-926-98 s SN74HC4040NS (TI)  
 IC113 8-759-103-95 s uPC648C (NEC)  
 IC114 8-759-908-92 s TL084CNS (TI)

IC116 8-759-908-92 s TL084CNS (TI)  
 IC117 8-759-908-92 s TL084CNS (TI)  
 IC118 8-759-208-15 s TC4066BF (TOSHIBA)  
 IC119 8-759-208-15 s TC4066BF (TOSHIBA)  
 IC120 8-759-938-68 s CXD1095Q (SONY)

IC121 8-759-708-09 s NJM78L09A (JRC)  
 IC122 8-759-204-98 s TC74HC08F (TOSHIBA)

L1 1-410-476-11 s MICRO 33  
 L2 1-410-476-11 s MICRO 33  
 L3 1-410-476-11 s MICRO 33  
 L4 1-410-476-11 s MICRO 33

Ref.No. Parts No. SP Description

Q1 8-729-600-27 s 2SC634SP  
 Q2 8-729-600-27 s 2SC634SP  
 Q3 8-729-600-27 s 2SC634SP

R1 1-247-887-00 s CARBON 220k 5% 1/4W  
 R3 1-247-887-00 s CARBON 220k 5% 1/4W  
 R5 1-247-887-00 s CARBON 220k 5% 1/4W  
 R7 1-247-887-00 s CARBON 220k 5% 1/4W  
 R19 1-247-887-00 s CARBON 220k 5% 1/4W

R114 1-217-666-31 s CARBON 0.01 1/6W  
 R116 1-217-666-31 s CARBON 0.01 1/6W  
 R170 1-247-887-00 s CARBON 220k 5% 1/4W  
 R172 1-247-887-00 s CARBON 220k 5% 1/4W  
 R182 1-217-666-91 s SHORT 0.01

R183 1-217-666-91 s SHORT 0.01

RB101 1-231-557-00 s 100k x 4

RV101 1-237-515-21 s VAR, CERMET 1k  
 RV102 1-237-505-21 s VAR, CERMET 50k  
 RV103 1-237-505-21 s VAR, CERMET 50k  
 RV104 1-237-520-21 s VAR, CERMET 50k

S101 1-553-572-00 s DIP (PIANO TYPE)

X101 1-567-865-11 s VIBRATOR 12.00MHz

SV-83B BOARD

A-6715-403-A o MOUNTED CIRCUIT BOARD, SV-83B

C1 1-124-236-00 s ELECT 47 20% 10V  
 C2 1-124-236-00 s ELECT 47 20% 10V  
 C3 1-162-879-21 s CERAMIC 100pF 5% 50V  
 C6 1-162-879-21 s CERAMIC 100pF 5% 50V  
 C12 1-162-879-21 s CERAMIC 100pF 5% 50V

C15 1-124-224-00 s ELECT 47 20% 6.3V  
 C16 1-124-224-00 s ELECT 47 20% 6.3V  
 C31 1-124-236-00 s ELECT 47 20% 10V  
 C32 1-124-236-00 s ELECT 47 20% 10V  
 C201 1-124-236-00 s ELECT 47 20% 10V

C202 1-124-462-00 s ELECT 10 20% 16V  
 C203 1-124-234-00 s ELECT 22 20% 16V  
 C204 1-131-345-00 s TANTAL 0.47 10% 35V  
 C208 1-162-885-11 s CERAMIC 330pF 5% 50V  
 C212 1-162-885-11 s CERAMIC 330pF 5% 50V

C219 1-161-463-00 s CERAMIC 220pF 5% 50V  
 C221 1-162-887-11 s CERAMIC 470pF 5% 50V  
 C309 1-124-236-00 s ELECT 47 20% 10V  
 C310 1-124-236-00 s ELECT 47 20% 10V  
 C311 1-124-236-00 s ELECT 47 20% 10V

C312 1-124-236-00 s ELECT 47 20% 10V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
3)	CN207	1-506-748-31	s DIN 96P
4)	CN207	1-506-748-11	s DIN 96P

D5	8-719-911-19	s	1SS119
D6	8-719-911-19	s	1SS119
D7	8-719-911-19	s	1SS119
D8	8-719-911-19	s	1SS119
D201	8-719-911-19	s	1SS119

IC1	8-759-132-40	s	uPC324C (NEC)
IC2	8-759-908-92	s	TL084CNS (TI)
IC3	8-759-908-92	s	TL084CNS (TI)
IC4	8-759-700-58	s	NJM4558D-FA (JRC)
IC5	8-759-908-92	s	TL084CNS (TI)
IC6	8-759-908-92	s	TL084CNS (TI)
IC7	8-759-700-07	s	NJM2903M (JRC)
IC8	8-759-700-07	s	NJM2903M (JRC)
IC10	8-759-910-43	s	CX23028 (SONY)
IC11	8-759-208-11	s	TC4053BFHB (TOSHIBA)

IC201	8-743-915-10	s	BX3915A (SONY)
IC202	8-759-208-11	s	TC4053BFHB (TOSHIBA)
IC203	8-759-200-90	s	TC4538BF (TOSHIBA)
IC204	8-759-205-78	s	TC504013BF (TOSHIBA)
IC205	8-759-200-84	s	TC4081BF (TOSHIBA)

IC206	8-759-700-07	s	NJM2903M (JRC)
IC207	8-759-200-90	s	TC4538BF (TOSHIBA)
IC208	8-759-204-20	s	TC4024BF (TOSHIBA)
IC209	8-759-204-20	s	TC4024BF (TOSHIBA)
IC210	8-759-700-07	s	NJM2903M (JRC)

IC211	8-759-200-68	s	TC4011BF (TOSHIBA)
IC212	8-759-200-68	s	TC4011BF (TOSHIBA)
IC213	8-759-205-78	s	TC504013BF (TOSHIBA)
IC214	8-759-200-90	s	TC4538BF (TOSHIBA)
IC215	8-759-200-90	s	TC4538BF (TOSHIBA)

IC216	8-759-205-78	s	TC504013BF (TOSHIBA)
IC217	8-759-205-78	s	TC504013BF (TOSHIBA)
IC218	8-759-200-90	s	TC4538BF (TOSHIBA)
IC219	8-759-208-11	s	TC4053BFHB (TOSHIBA)
IC220	8-759-205-16	s	TC74HC161F (TOSHIBA)

IC221	8-759-200-78	s	TC4030BF (TOSHIBA)
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L1	1-410-476-11	s	MICRO 33
L2	1-410-476-11	s	MICRO 33
L3	1-410-476-11	s	MICRO 33
L4	1-410-476-11	s	MICRO 33

Q2	8-729-201-04	s	2SC2878
Q3	8-729-201-04	s	2SC2878
Q4	8-729-201-04	s	2SC2878
Q5	8-729-201-04	s	2SC2878
Q8	8-729-201-04	s	2SC2878

Q9	8-729-611-53	s	2SA1115-F
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Ref.No.	Parts No.	SP	Description
R21	1-247-883-00	s	CARBON 150k 5% 1/4W
R129	1-247-887-00	s	CARBON 220k 5% 1/4W
R132	1-247-883-00	s	CARBON 150k 5% 1/4W
R133	1-247-883-00	s	CARBON 150k 5% 1/4W
R215	1-247-883-00	s	CARBON 150k 5% 1/4W
R222	1-247-883-00	s	CARBON 150k 5% 1/4W
R257	1-247-887-11	s	CARBON 220k 5% 1/4W
R263	1-247-666-31	s	SHORT 0.01 1/6W
R265	1-247-666-31	s	SHORT 0.01 1/6W

RV1	1-230-838-11	s	VAR, METAL FILM 200
RV2	1-237-512-21	s	VAR, CERMET 100
RV3	1-237-520-21	s	VAR, CERMET 50k
RV4	1-237-518-21	s	VAR, CERMET 10k
RV8	1-237-519-21	s	VAR, CERMET 20k

RV9	1-237-518-21	s	VAR, CERMET 10k
RV10	1-237-518-21	s	VAR, CERMET 10k
RV11	1-237-518-21	s	VAR, CERMET 10k
RV12	1-237-518-21	s	VAR, CERMET 10k
RV13	1-237-518-21	s	VAR, CERMET 10k

RV15	1-237-521-21	s	VAR, CERMET 100k
RV16	1-237-521-21	s	VAR, CERMET 100k
RV201	1-237-521-21	s	VAR, CERMET 100k
RV202	1-237-521-21	s	VAR, CERMET 100k
RV205	1-237-521-21	s	VAR, CERMET 100k

RV206	1-237-521-22	s	VAR, CERMET 200k
RV210	1-237-520-21	s	VAR, CERMET 50k

S1	1-571-259-11	s	SLIDE
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# SV-84P BOARD

A-6715-386-A o MOUNTED CIRCUIT BOARD, SV-84P

C1	1-124-224-00	s	ELECT 47 20% 6.3V
C2	1-124-224-00	s	ELECT 47 20% 6.3V
C3	1-124-236-00	s	ELECT 47 20% 16V
C4	1-124-236-00	s	ELECT 47 20% 16V
C7	1-124-236-00	s	ELECT 47 20% 16V

C10	1-124-236-00	s	ELECT 47 20% 16V
C11	1-162-879-11	s	CERAMIC 100pF 5% 50V
C12	1-130-736-11	s	FILM 0.01 5% 50V
C29	1-124-224-00	s	ELECT 47 20% 6.3V
C30	1-124-224-00	s	ELECT 47 20% 6.3V

C31	1-124-236-00	s	ELECT 47 20% 16V
C32	1-124-236-00	s	ELECT 47 20% 16V
C100	1-124-234-00	s	ELECT 22 20% 16V
C105	1-162-887-11	s	CERAMIC 470pF 5% 50V
C106	1-162-887-11	s	CERAMIC 470pF 5% 50V

C107	1-162-887-11	s	CERAMIC 470pF 5% 50V
C111	1-162-879-11	s	CERAMIC 100pF 5% 50V
C112	1-162-879-11	s	CERAMIC 100pF 5% 50V
C116	1-124-254-00	s	ELECT 0.68 20% 50V
C117	1-124-254-00	s	ELECT 0.68 20% 50V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

C118 1-124-261-00 s ELECT 10 20% 50V  
C119 1-124-261-00 s ELECT 10 20% 50V  
C120 1-162-879-11 s CERAMIC 100pF 5% 50V  
C121 1-130-736-11 s FILM 0.01 5% 50V  
C123 1-136-287-11 s FILM 4700pF 5% 50V

C127 1-130-736-11 s FILM 0.01 5% 50V  
C130 1-124-462-00 s ELECT 10 20% 16V  
C131 1-124-236-00 s ELECT 47 20% 16V  
C202 1-123-611-00 s ELECT 1 20% 50V  
C203 1-124-261-00 s ELECT 10 20% 50V

C207 1-123-611-00 s ELECT 1 20% 50V  
C208 1-124-261-00 s ELECT 10 20% 50V  
C212 1-123-611-00 s ELECT 1 20% 50V  
C213 1-124-261-00 s ELECT 10 20% 50V  
C216 1-123-611-00 s ELECT 1 20% 50V

C217 1-123-611-00 s ELECT 1 20% 50V  
C219 1-162-879-11 s CERAMIC 100pF 5% 50V  
C221 1-162-879-11 s CERAMIC 100pF 5% 50V

3) CN208 1-506-748-31 s DIN 96P  
4) CN208 1-506-748-11 s DIN 96P

D1 8-719-911-19 s 1SS119  
D2 8-719-911-19 s 1SS119  
D4 8-719-911-19 s 1SS119  
D5 8-719-911-19 s 1SS119  
D100 8-719-911-19 s 1SS119

D101 8-719-911-19 s 1SS119  
D102 8-719-911-19 s 1SS119  
D103 8-719-911-19 s 1SS119  
D104 8-719-911-19 s 1SS119  
D105 8-719-911-19 s 1SS119

D201 8-719-911-19 s 1SS119  
D202 8-719-911-19 s 1SS119  
D203 8-719-911-19 s 1SS119  
D204 8-719-911-19 s 1SS119

IC1 8-759-700-07 s NJM2903M (JRC)  
IC2 8-759-908-92 s TL084CNS (TI)  
IC3 8-759-908-92 s TL084CNS (TI)  
IC4 8-759-700-07 s NJM2903M (JRC)  
IC5 8-759-200-90 s TC4538BF (TOSHIBA)

IC6 8-759-208-11 s TC4053BFHB (TOSHIBA)  
IC7 8-759-910-43 s CX23028 (SONY)  
IC8 8-759-200-68 s TC4011BF (TOSHIBA)  
IC100 8-759-981-90 s RC4558D-D (RAYTHEON)  
IC101 8-743-914-00 s BX3914 (SONY)

IC102 8-759-208-11 s TC4053BFHB (TOSHIBA)  
IC103 8-759-208-11 s TC4053BFHB (TOSHIBA)  
IC104 8-759-208-11 s TC4053BFHB (TOSHIBA)  
IC105 8-759-200-90 s TC4538BF (TOSHIBA)  
IC106 8-759-200-67 s TC4001BF (TOSHIBA)

IC107 8-759-200-83 s TC4071BF (TOSHIBA)  
IC108 8-759-200-90 s TC4538BF (TOSHIBA)  
IC109 8-759-907-81 s SN74LS221NS (TI)  
IC110 8-759-908-92 s TL084CNS (TI)  
IC111 8-759-200-90 s TC4538BF (TOSHIBA)

Ref.No. Parts No. SP Description

IC112 8-759-201-53 s TC40H000F (TOSHIBA)  
IC113 8-759-201-53 s TC40H000F (TOSHIBA)  
IC114 8-759-926-37 s SN74HC193NS (TI)  
IC115 8-759-926-37 s SN74HC193NS (TI)  
IC116 8-759-931-55 s SN74LS683NS (TI)

IC117 8-759-938-68 s CXD1095Q (SONY)  
IC118 8-759-205-39 s TC74HC4049F (TOSHIBA)  
IC119 8-759-205-06 s TC74HC74F (TOSHIBA)  
IC120 8-759-205-05 s TC74HC32F (TOSHIBA)  
IC201 8-759-700-07 s NJM2903M (JRC)

IC202 8-759-700-07 s NJM2903M (JRC)  
IC203 8-759-208-11 s TC4053BFHB (TOSHIBA)

L1 1-410-476-11 s MICRO 33  
L2 1-410-476-11 s MICRO 33  
L3 1-410-476-11 s MICRO 33  
L4 1-410-476-11 s MICRO 33

Q1 8-729-201-05 s 2SC2878-B  
Q2 8-729-201-05 s 2SC2878-B  
Q3 8-729-201-05 s 2SC2878-B  
Q4 8-729-900-89 s DTC144ES  
Q5 8-729-900-89 s DTC144ES

Q100 8-729-900-89 s DTC144ES  
Q101 8-729-103-43 s 2SB734\*(28)  
Q102 8-729-611-53 s 2SA1115-F  
Q103 8-729-900-89 s DTC144ES  
Q104 8-729-201-05 s 2SC2878-B

Q105 8-729-201-05 s 2SC2878-B  
Q106 8-729-900-89 s DTC144ES  
Q107 8-729-900-89 s DTC144ES  
Q108 8-729-900-89 s DTC144ES  
Q109 8-729-201-05 s 2SC2878-B

Q110 8-729-900-89 s DTC144ES  
Q111 8-729-201-05 s 2SC2878-B  
Q113 8-729-900-89 s DTC144ES

R6 1-247-903-00 s CARBON 1M 5% 1/4W  
R14 1-247-903-00 s CARBON 1M 5% 1/4W  
R28 1-247-887-00 s CARBON 220k 5% 1/4W  
R47 1-247-883-00 s CARBON 150k 5% 1/4W  
R53 1-247-883-00 s CARBON 150k 5% 1/4W

R108 1-247-887-00 s CARBON 220k 5% 1/4W  
R115 1-247-887-00 s CARBON 220k 5% 1/4W  
R118 1-247-887-00 s CARBON 220k 5% 1/4W  
R123 1-247-887-00 s CARBON 220k 5% 1/4W  
R124 1-247-887-00 s CARBON 220k 5% 1/4W

R134 1-247-887-00 s CARBON 220k 5% 1/4W  
R136 1-247-881-00 s CARBON 120k 5% 1/4W  
R141 1-247-887-00 s CARBON 220k 5% 1/4W  
R145 1-247-881-00 s CARBON 120k 5% 1/4W  
R160 1-247-891-00 s CARBON 330k 5% 1/4W

R206 1-247-887-00 s CARBON 220k 5% 1/4W  
R214 1-247-887-00 s CARBON 220k 5% 1/4W  
R222 1-247-887-00 s CARBON 220k 5% 1/4W  
R228 1-247-887-00 s CARBON 220k 5% 1/4W  
R250 1-247-887-00 s CARBON 220k 5% 1/4W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

R258 1-247-887-00 s CARBON 220k 5% 1/4W  
 R259 1-247-887-00 s CARBON 220k 5% 1/4W  
 R260 1-247-887-00 s CARBON 220k 5% 1/4W

RV1 1-237-517-21 s VAR, CERMET 5k  
 RV2 1-237-518-21 s VAR, CERMET 10k  
 RV3 1-237-518-21 s VAR, CERMET 10k  
 RV4 1-237-522-21 s VAR, CERMET 200k  
 RV100 1-237-522-21 s VAR, CERMET 200k

RV101 1-237-520-21 s VAR, CERMET 50k  
 RV102 1-237-521-21 s VAR, CERMET 100k  
 RV202 1-237-503-21 s VAR, CERMET 10k

SW-144A BOARD

1-622-573-13 o PRINTED CIRCUIT BOARD, SW-144

C9 1-124-236-00 s ELECT 47 20% 16V  
 C10 1-124-236-00 s ELECT 47 20% 16V

D1 8-719-800-86 s TLG255  
 D2 8-719-800-86 s TLG255  
 D3 8-719-800-89 s TLY255  
 D4 8-719-800-89 s TLY255  
 D5 8-719-800-86 s TLG255

D7 8-719-800-86 s TLG255  
 D10 8-719-800-86 s TLG255  
 D11 8-719-911-19 s 1SS119  
 D12 8-719-800-86 s TLG255

Q1 8-729-900-63 s DTA124ES  
 Q2 8-729-900-63 s DTA124ES  
 Q3 8-729-900-63 s DTA124ES

R3 1-247-706-11 s CARBON 330 5% 1/4W  
 R4 1-247-706-11 s CARBON 330 5% 1/4W  
 R6 1-247-706-11 s CARBON 330 5% 1/4W  
 R17 1-247-710-11 s CARBON 560 5% 1/4W

S1 1-516-995-00 s LEVER SLIDE  
 S3 1-516-961-00 s LEVER SLIDE  
 S4 1-516-995-00 s LEVER SLIDE

Ref.No. Parts No. SP Description

5) SW-261 BOARD

All of the component parts on the SW-261 Board are supplied together when you order the TBC-7P board.

1-624-101-11 o PRINTED CIRCUIT BOARD, SW-261

R1 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W

RV1 1-228-459-11 s VAR, CERMET 10k

SY-61A BOARD

IC6 8-759-736-27 s C256A-BVW65P V2.00 SY1  
 IC39 8-759-736-28 s C512-BVW65P V2.00 SY2

10) A-6717-476-A o MOUNTED CIRCUIT BOARD, SY-61A  
 11) A-6717-476-B o MOUNTED CIRCUIT BOARD, SY-61A

C1 1-124-236-00 s ELECT 47 20% 10V  
 C3 1-126-103-11 s ELECT 470 20% 16V  
 C5 1-126-103-11 s ELECT 470 20% 16V  
 C101 1-124-462-00 s ELECT 10 20% 16V  
 C107 1-162-720-11 s CERAMIC 270pF 50V

C108 1-124-234-00 s ELECT 22 20% 16V  
 C111 1-162-887-11 s CERAMIC 470pF 5% 50V  
 C201 1-124-462-00 s ELECT 10 20% 16V  
 C209 1-107-169-00 s MICA 100pF 5% 500V  
 C210 1-107-169-00 s MICA 100pF 5% 500V

C212 1-123-611-00 s ELECT 1 20% 50V  
 C213 1-123-611-00 s ELECT 1 20% 50V  
 C302 1-102-114-00 s CERAMIC 470pF 10% 50V  
 C305 1-124-462-00 s ELECT 10 20% 16V  
 C309 1-102-106-00 s CERAMIC 100pF 10% 50V

3) CN301 1-506-748-31 s DIN 96P  
 4) CN301 1-506-748-11 s DIN 96P  
 3) CN302 1-506-748-31 s DIN 96P  
 4) CN302 1-506-748-11 s DIN 96P

CV101 1-141-297-11 s TRIMMER, CERAMIC 90pF  
 CV102 1-141-260-00 s TRIMMER, CERAMIC 30pF

D101 8-719-800-60 s TLR214  
 D102 8-719-911-19 s 1SS119  
 D103 8-719-911-19 s 1SS119  
 D104 8-719-911-19 s 1SS119  
 D201 8-719-911-19 s 1SS119

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# SY-61A/64AP

Ref.No. Parts No. SP Description

D202 8-719-911-19 s 1SS119  
D203 8-719-911-19 s 1SS119  
D204 8-719-911-19 s 1SS119  
D205 8-719-911-19 s 1SS119  
D206 8-719-911-19 s 1SS119

D301 8-719-911-19 s 1SS119  
D302 8-719-911-19 s 1SS119  
D303 8-719-911-19 s 1SS119

IC1 8-759-902-44 s SN74LS244N (TI)  
IC2 8-759-902-45 s SN74LS245N (TI)  
IC3 8-759-902-44 s SN74LS244N (TI)  
IC4 8-759-942-12 s MBM2212-25P (FUJITSU)  
IC5 8-752-321-24 s CXK5816PN-12L (SONY)

IC7 8-759-208-86 s TMP284C011AF (TOSHIBA)  
IC8 8-759-202-13 s TC74HC04P (TOSHIBA)  
IC9 8-759-600-61 s M54529AP (MITSUBISHI)  
IC10 8-759-202-16 s TC74HC11P (TOSHIBA)  
IC11 8-759-202-26 s TC74HC138P (TOSHIBA)

IC12 8-759-202-26 s TC74HC138P (TOSHIBA)  
IC13 8-759-202-17 s TC74HC14P (TOSHIBA)  
IC14 8-759-240-50 s TC4050BP (TOSHIBA)  
10) IC15 8-759-240-53 s TC4053BP (TOSHIBA)  
11) IC15 8-759-208-10 s TC4053BFHB (TOSHIBA)

IC16 8-759-203-52 s TC74HC595P (TOSHIBA)  
IC17 8-759-004-84 s MC74HC597N (MOTOROLA)  
IC18 8-759-278-05 s NJM78L05A (JRC)  
IC19 8-759-908-23 s MB88303 (FUJITSU)  
IC20 8-759-926-30 s AM26LS30PC (AMD)

IC21 8-759-202-27 s TC74HC157P (TOSHIBA)  
IC22 8-759-202-27 s TC74HC157P (TOSHIBA)  
IC23 8-752-321-24 s CXK5816PN-12L (SONY)  
IC24 8-759-202-13 s TC74HC04P (TOSHIBA)  
IC25 8-759-729-03 s NJM2903D (JRC)

IC26 8-759-008-57 s MC34051P (MOTOROLA)  
IC27 8-759-208-86 s TMP284C011AF (TOSHIBA)  
IC28 8-759-202-56 s TC74HC245P (TOSHIBA)  
IC29 8-759-202-56 s TC74HC245P (TOSHIBA)  
IC30 8-759-939-03 s BU18430A (ROHM)

IC31 8-759-600-61 s M54529AP (MITSUBISHI)  
IC32 8-759-600-61 s M54529AP (MITSUBISHI)  
IC33 8-759-207-73 s TC4030BPHB (TOSHIBA)  
IC34 8-759-202-14 s TC74HC08P (TOSHIBA)  
IC35 8-759-906-97 s SN74LS697N (TI)

IC36 8-759-906-97 s SN74LS697N (TI)  
IC37 8-759-600-61 s M54529AP (MITSUBISHI)  
IC38 8-759-938-68 s CXD1095Q (SONY)  
IC40 8-752-328-11 s CXK5864BP-12L (SONY)  
IC41 8-759-939-04 s BU18440A (ROHM)

IC42 8-759-202-21 s TC74HC32P (TOSHIBA)  
IC43 8-759-202-21 s TC74HC32P (TOSHIBA)  
IC44 8-759-202-11 s TC74HC00P (TOSHIBA)  
IC45 8-759-603-32 s M51958BL (MITSUBISHI)  
IC46 8-759-202-14 s TC74HC08P (TOSHIBA)

IC47 8-759-045-38 s MC14538BCP (MOTOROLA)  
IC48 8-759-240-69 s TC4069UBP (TOSHIBA)  
IC49 8-759-001-14 s MC74HC58N (MOTOROLA)  
IC50 8-759-202-21 s TC74HC32P (TOSHIBA)  
IC51 8-759-202-13 s TC74HC04P (TOSHIBA)

IC52 8-759-202-89 s TC74HC139P (TOSHIBA)  
IC53 8-759-202-12 s TC74HC02P (TOSHIBA)

Ref.No. Parts No. SP Description

L1 1-459-155-00 s 45 (WITH CORE)

13) R247 1-217-666-31 s SHORT 0.01 1/6W  
R290 1-247-881-00 s CARBON 120k 5% 1/4W  
R307 1-247-887-00 s CARBON 220k 5% 1/4W  
R315 1-247-887-00 s CARBON 220k 5% 1/4W

S101 1-570-707-11 s SLIDE  
S102 1-553-812-00 s PUSH  
S103 1-553-812-00 s PUSH  
S105 1-553-812-00 s PUSH  
S106 1-552-509-00 s DIP

S202 1-570-707-11 s SLIDE  
S203 1-570-623-11 s DIP  
S204 1-570-623-11 s DIP  
S206 1-553-812-00 s PUSH  
S302 1-552-509-00 s DIP

X1 1-567-132-00 s VIBRATOR 8.00MHz  
X2 1-567-870-11 s VIBRATOR 614.00kHz

## SY-64AP BOARD

A-6717-487-A o MOUNTED CIRCUIT BOARD, SY-64AP

C1 1-126-103-11 s ELECT 470 20% 16V  
C3 1-124-135-00 s ELECT 470 20% 6.3V  
C4 1-124-455-00 s ELECT 100 20% 16V  
C7 1-124-462-00 s ELECT 10 20% 16V  
C9 1-124-462-00 s ELECT 10 20% 16V

C11 1-124-462-00 s ELECT 10 20% 16V  
C12 1-124-242-00 s ELECT 33 20% 25V  
C13 1-124-242-00 s ELECT 33 20% 25V  
C15 1-124-462-00 s ELECT 10 20% 16V  
C16 1-123-611-00 s ELECT 1 20% 50V

C27 1-102-951-11 s CERAMIC 15pF 50V  
C28 1-102-947-00 s CERAMIC 10pF 50V  
C32 1-124-462-00 s ELECT 10 20% 16V  
C61 1-124-236-00 s ELECT 47 20% 16V  
C63 1-124-236-00 s ELECT 47 20% 16V

C65 1-161-463-00 s CERAMIC 220pF 5% 50V  
C66 1-161-463-00 s CERAMIC 220pF 5% 50V  
C67 1-124-462-00 s ELECT 10 20% 16V  
C68 1-124-236-00 s ELECT 47 20% 16V  
C71 1-124-465-00 s ELECT 0.47 20% 50V

C72 1-162-889-11 s CERAMIC 680pF 5% 50V  
C74 1-161-463-00 s CERAMIC 220pF 5% 50V  
C75 1-102-106-00 s CERAMIC 100pF 10% 50V  
C302 1-124-462-00 s ELECT 10 20% 16V  
C305 1-124-462-00 s ELECT 10 20% 16V

C309 1-162-880-11 s CERAMIC 120pF 5% 50V  
C310 1-102-947-00 s CERAMIC 10pF 50V  
C311 1-102-947-00 s CERAMIC 10pF 50V  
C312 1-124-462-00 s ELECT 10 20% 16V  
C313 1-162-880-11 s CERAMIC 120pF 5% 50V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
	C314	1-124-462-00	s ELECT 10 20% 16V
	C315	1-124-236-00	s ELECT 47 20% 16V
	C316	1-162-880-11	s CERAMIC 120pF 5% 50V
8)	C317	1-124-247-00	s ELECT 10 20% 25V
	C318	1-124-236-00	s ELECT 47 20% 16V
	C319	1-124-236-00	s ELECT 47 20% 16V
	C352	1-102-106-00	s CERAMIC 100pF 10% 50V
	C401	1-129-794-00	s FILM 0.0033 5% 100V
	C404	1-162-887-11	s CERAMIC 470pF 5% 50V
	C405	1-124-224-00	s ELECT 47 20% 6.3V
	C406	1-130-726-00	s FILM 0.0015 5% 100V
	C409	1-162-885-11	s CERAMIC 330pF 5% 50V
	C410	1-124-224-00	s ELECT 47 20% 6.3V
	C412	1-123-611-00	s ELECT 1 20% 50V
	C413	1-124-257-00	s ELECT 2.2 20% 50V
	C414	1-124-236-00	s ELECT 47 20% 16V
	CN303	1-568-144-11	s DIN 96P
	CN304	1-568-144-11	s DIN 96P
	CN305	1-566-311-11	s DIN 10P
	D2	8-719-200-02	s 10E2
	D3	8-719-200-02	s 10E2
	D4	8-719-200-02	s 10E2
	D5	8-719-200-02	s 10E2
	D6	8-719-200-02	s 10E2
	D17	8-719-200-02	s 10E2
	D18	8-719-200-02	s 10E2
	D19	8-719-911-19	s 1SS119
	D20	8-719-911-19	s 1SS119
8)	D301	8-719-911-19	s 1SS119
	D302	8-719-101-97	s 1SS97-1
	D303	8-719-101-97	s 1SS97-1
	D304	8-719-911-19	s 1SS119
	D305	8-719-911-19	s 1SS119
	D306	8-719-911-19	s 1SS119
	D307	8-719-911-19	s 1SS119
	IC1	8-743-430-00	s BX343 (SONY)
	IC2	8-759-800-72	s LA7205 (SANYO)
	IC3	8-759-800-72	s LA7205 (SANYO)
	IC4	8-759-114-14	s uPD78312CW-608 (NEC)
	IC5	8-759-990-82	s TL082CP (TI)
17)	IC6	8-759-240-16	s TC4016BP (TOSHIBA)
18)	IC6	8-759-208-12	s TC4016BPHB (TOSHIBA)
	IC7	8-759-990-82	s TL082CP (TI)
	IC9	8-759-942-18	s TLC548CP (TI)
	IC10	8-759-203-35	s TC74HC373P (TOSHIBA)
	IC11	8-752-321-24	s CXK5816PN-12L (SONY)
	IC15	8-759-990-84	s TL084CN (TI)
	IC16	8-759-990-84	s TL084CN (TI)
	IC17	8-759-990-82	s TL082CP (TI)
	IC18	8-759-400-06	s AN608P (MATSUSHITA)
	IC19	8-759-912-64	s PA0009 (PIONEER)
	IC15	8-759-990-84	s TL084CN (TI)
	IC16	8-759-990-84	s TL084CN (TI)
	IC17	8-759-007-40	s TL082CP (TI)
	IC18	8-759-400-06	s AN608P (MATSUSHITA)

Ref.No.	Parts No.	SP	Description
IC19	8-759-912-64	s	PA0009 (PIONEER)
IC20	8-759-901-23	s	SN74LS123N (TI)
IC21	8-759-202-74	s	TC74HC04P (TOSHIBA)
IC25	8-759-901-23	s	SN74LS123N (TI)
IC26	8-759-240-50	s	TC4050BP (TOSHIBA)
IC27	8-759-202-11	s	TC74HC00P (TOSHIBA)
IC30	8-759-234-04	s	TA7267BP (TOSHIBA)
IC31	8-759-234-04	s	TA7267BP (TOSHIBA)
IC32	8-759-245-38	s	TC4538BP (TOSHIBA)
IC34	8-759-202-21	s	TC74HC32P (TOSHIBA)
IC35	8-759-240-01	s	TC4001BP (TOSHIBA)
IC36	8-759-340-13	s	HD14013BP (HITACHI)
IC37	8-759-600-34	s	M54532P (MITSUBISHI)
IC38	8-759-202-14	s	TC74HC08P (TOSHIBA)
IC39	8-759-202-37	s	TC74HC4050P (TOSHIBA)
IC40	8-759-938-68	s	CXD1095Q (SONY)
IC41	8-759-202-14	s	TC74HC08P (TOSHIBA)
IC42	8-752-321-24	s	CXK5816PN-12L (SONY)
IC43	8-759-202-33	s	TC74HC240P (TOSHIBA)
IC44	8-759-910-76	s	CX7913A (SONY)
IC45	8-759-645-23	s	M54523P (MITSUBISHI)
IC46	8-759-938-68	s	CXD1095Q (SONY)
IC47	8-759-938-68	s	CXD1095Q (SONY)
IC48	8-759-202-74	s	TC74HC04P (TOSHIBA)
IC49	8-752-321-24	s	CXK5816PN-12L (SONY)
IC50	8-759-202-55	s	TC74HC244P (TOSHIBA)
IC51	8-759-909-72	s	CX7912A (SONY)
IC52	8-759-202-37	s	TC74HC4050P (TOSHIBA)
IC53	8-759-340-13	s	HD14013BP (HITACHI)
IC54	8-759-203-83	s	TC74HC4538P (TOSHIBA)
L1	1-459-155-00	s	45 (WITH CORE)
L301	1-410-482-31	s	MICRO 100
L302	1-410-482-31	s	MICRO 100
Q1	8-729-600-27	s	2SC634SP
Q2	8-729-117-54	s	2SA1175
Q4	8-729-600-27	s	2SC634SP
Q301	8-729-600-27	s	2SC634SP
Q302	8-729-201-05	s	2SC2878
Q303	8-729-201-05	s	2SC2878
Q304	8-729-201-05	s	2SC2878
Q305	8-729-201-05	s	2SC2878
R73	1-247-903-00	s	CARBON 1M 5% 1/4W
R301	1-247-903-00	s	CARBON 1M 5% 1/4W
R305	1-247-903-00	s	CARBON 1M 5% 1/4W
R318	1-247-903-00	s	CARBON 1M 5% 1/4W
R411	1-217-666-31	s	SHORT 0.01 1/6W
R412	1-217-666-31	s	SHORT 0.01 1/6W
R413	1-217-666-31	s	SHORT 0.01 1/6W
RB301	1-231-387-00	s	NETTY
RB302	1-231-387-00	s	NETTY
RV303	1-237-521-21	s	VAR, CERMET 100k
RV304	1-237-521-21	s	VAR, CERMET 100k
RV305	1-237-521-21	s	VAR, CERMET 100k
RV399	1-237-521-21	s	VAR, CERMET 100k

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# Y-64AP, TBC-7D

Ref.No. Parts No. SP Description

S1 1-571-060-11 s SLIDE  
S301 1-552-509-00 s DIP  
S302 1-552-509-00 s DIP

X1 1-567-867-11 s 14.500MHz  
X301 1-527-828-00 s 12.000MHz

## 18) TBC-7D BOARD

A-6727-094-A o MOUNTED CIRCUIT BOARD, TBC-7D

C100 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C102 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C103 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C105 1-135-076-21 s TANTAL 1 10% 35V  
C108 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C110 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C111 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C115 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C121 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C124 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C125 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C126 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C128 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C130 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C135 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C205 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C206 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C209 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C211 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C213 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C217 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C219 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C221 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C225 1-162-568-11 s CERAMIC CHIP 0.33 25V  
C226 1-162-638-11 s CERAMIC CHIP 1 16V  
  
C227 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C228 1-162-568-11 s CERAMIC CHIP 0.33 25V  
C229 1-162-638-11 s CERAMIC CHIP 1 16V  
C231 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C234 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C236 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C242 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C243 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C245 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C246 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C248 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C253 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C254 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C255 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C259 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C263 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C265 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C270 1-162-638-11 s CERAMIC CHIP 1 16V  
C271 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C273 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

Ref.No. Parts No. SP Description

C276 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C277 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C281 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C284 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C288 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C290 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C291 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C293 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C295 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C302 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C400 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C402 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C403 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C405 1-135-076-21 s TANTAL 1 10% 35V  
C408 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C412 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C418 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C419 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C421 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C422 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C424 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C504 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C509 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C511 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C521 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C522 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C524 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C526 1-162-638-11 s CERAMIC CHIP 1 16V  
C527 1-162-568-11 s CERAMIC CHIP 0.33 25V  
C529 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C531 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C533 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C535 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C536 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C537 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C540 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C542 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C545 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C548 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C550 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C555 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C558 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C559 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C566 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C569 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C575 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C578 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C581 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C583 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C600 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C611 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C612 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C613 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C615 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C651 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
  
C701 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C704 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C706 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C708 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C750 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

## Ref.No. Parts No. SP Description

C801 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C804 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C805 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C807 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C902 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C905 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C908 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C911 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C914 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C917 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C920 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C923 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C926 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C929 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C932 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C935 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

CN108 1-506-746-11 s DIN 48P  
 CN109 1-506-748-11 s DIN 96P

D100 8-719-105-82 s RD5.1M-B2  
 D200 8-719-106-08 s RD6.2M-B2  
 D202 8-719-915-43 s FC54M  
 D203 8-719-915-43 s FC54M  
 D204 8-719-915-43 s FC54M

D205 8-719-938-98 s FC51M  
 D206 8-719-938-98 s FC51M  
 D207 8-719-938-98 s FC51M  
 D208 8-719-101-23 s 1S8123  
 D209 8-719-100-03 s 1S2835

D210 8-719-105-82 s RD5.1M-B2  
 D211 8-719-106-53 s RD10M-B2  
 D212 8-719-938-98 s FC51M  
 D213 8-719-938-98 s FC51M  
 D214 8-719-100-03 s 1S2835

D400 8-719-105-82 s RD5.1M-B2  
 D503 8-719-915-43 s FC54M  
 D504 8-719-915-43 s FC54M  
 D505 8-719-915-43 s FC54M  
 D506 8-719-101-23 s 1S8123

D507 8-719-106-62 s RD11M-B2  
 D508 8-719-105-82 s RD5.1M-B2  
 D650 8-719-106-17 s RD6.8M-B2  
 D680 8-719-101-23 s 1S8123  
 D700 8-719-100-03 s 1S2835

D704 8-719-105-82 s RD5.1M-B2  
 D705 8-719-105-73 s RD4.7M-B2  
 D706 8-719-101-23 s 1S8123  
 D707 8-719-106-17 s RD6.8M-B2

DL500 1-415-309-00 s 350ns

FL100 1-236-006-13 s LOW-PASS 7.0MHz  
 FL400 1-236-162-11 s LOW-PASS 4.2MHz

## Ref.No. Parts No. SP Description

IC101 8-749-901-45 s SBX4002-01 (NEC)  
 IC102 8-759-908-15 s TL431CLP (TI)  
 IC103 8-759-908-17 s TL082CPS (TI)  
 IC105 8-752-032-55 s CXA1096M (SONY)  
 IC108 8-759-948-32 s CXD1310AM (SONY)

IC201 8-759-201-47 s TA7357AP (TOSHIBA)  
 IC203 8-759-941-27 s MB4002PF (FUJITSU)  
 IC205 8-759-941-27 s MB4002PF (FUJITSU)  
 IC206 8-759-907-81 s SN74LS221NS (TI)  
 IC207 8-759-908-17 s TL082CPS (TI)

IC208 8-759-941-17 s SN74LS06NS (TI)  
 IC209 8-759-012-00 s MC10H116M (MOTOROLA)  
 IC210 8-759-012-13 s MC10H125M (MOTOROLA)  
 IC211 8-759-230-23 s CXD1045AQ (SONY)  
 IC212 8-749-901-21 s BX1461 (SONY)

IC213 8-759-908-17 s TL082CPS (TI)  
 IC214 8-759-945-29 s TL601CPS (TI)  
 IC215 8-759-907-81 s SN74LS221NS (TI)  
 IC216 8-749-901-20 s BX1460 (SONY)  
 IC217 8-759-105-49 s uPC319G2 (NEC)

IC218 8-759-239-58 s TC74HC221AF (TOSHIBA)  
 IC219 8-759-205-06 s TC74HC74F (TOSHIBA)  
 IC220 8-759-908-17 s TL082CPS (TI)  
 IC221 8-759-945-29 s TL601CPS (TI)  
 IC222 8-759-100-97 s uPC339G2 (NEC)

IC223 8-759-205-08 s TC74HC86F (TOSHIBA)  
 IC224 8-759-204-98 s TC74HC08F (TOSHIBA)  
 IC225 8-759-908-17 s TL082CPS (TI)  
 IC226 8-759-945-29 s TL601CPS (TI)  
 IC228 8-759-908-17 s TL082CPS (TI)

IC231 8-759-204-98 s TC74HC08F (TOSHIBA)  
 IC232 8-759-945-29 s TL601CPS (TI)  
 IC234 8-759-205-17 s TC74HC174F (TOSHIBA)  
 IC235 8-759-205-12 s TC74HC157F (TOSHIBA)  
 IC236 8-759-205-12 s TC74HC157F (TOSHIBA)

IC237 8-759-908-17 s TL082CPS (TI)  
 IC238 8-759-907-81 s SN74LS221NS (TI)  
 IC239 8-759-204-94 s TC74HC00F (TOSHIBA)  
 IC240 8-759-945-29 s TL601CPS (TI)  
 IC241 8-759-100-93 s uPC393G2 (NEC)

IC401 8-749-901-45 s SBX4002-01 (NEC)  
 IC403 8-752-032-55 s CXA1096M (SONY)  
 IC404 8-759-948-32 s CXD1310AM (SONY)  
 IC501 8-759-204-94 s TC74HC00F (TOSHIBA)  
 IC502 8-759-201-47 s TA7357AP (TOSHIBA)

IC504 8-759-908-17 s TL082CPS (TI)  
 IC505 8-759-941-17 s SN74LS06NS (TI)  
 IC506 8-759-012-13 s MC10H125M (MOTOROLA)  
 IC507 8-759-230-23 s CXD1045AQ (SONY)  
 IC508 8-749-901-21 s BX1461 (SONY)

IC509 8-759-908-17 s TL082CPS (TI)  
 IC510 8-759-945-29 s TL601CPS (TI)  
 IC511 8-749-901-20 s BX1460 (SONY)  
 IC512 8-759-907-81 s SN74LS221NS (TI)  
 IC513 8-759-941-27 s MB4002PF (FUJITSU)

IC514 8-759-945-29 s TL601CPS (TI)  
 IC516 8-759-908-17 s TL082CPS (TI)  
 IC517 8-759-908-17 s TL082CPS (TI)  
 IC519 8-759-205-08 s TC74HC86F (TOSHIBA)  
 IC520 8-759-945-29 s TL601CPS (TI)

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".



Ref.No. Parts No. SP Description

IC522 8-759-105-49 s uPC319G2 (NEC)  
 IC523 8-759-908-17 s TL082CPS (TI)  
 IC610 8-759-908-15 s TL431CLP (TI)  
 IC611 8-759-908-17 s TL082CPS (TI)  
 IC650 8-759-941-27 s MB4002PF (FUJITSU)

IC700 8-759-945-29 s TL601CPS (TI)  
 IC701 8-752-015-81 s CX20158 (SONY)  
 IC702 8-752-332-67 s CXD1217M (SONY)  
 IC720 8-759-204-98 s TC74HC08F (TOSHIBA)  
 IC801 8-752-015-81 s CX20158 (SONY)

L102 1-410-470-11 s MICRO 10  
 L103 1-410-470-11 s MICRO 10  
 L104 1-410-470-11 s MICRO 10  
 L205 1-408-880-00 s MICRO 0.68  
 L214 1-410-492-11 s MICRO 680

L219 1-410-461-41 s MICRO 1.8  
 L402 1-410-470-11 s MICRO 10  
 L403 1-410-470-11 s MICRO 10  
 L406 1-410-470-11 s MICRO 10  
 L508 1-408-880-00 s MICRO 0.68

L900 1-421-329-00 s CHOKE  
 L901 1-421-329-00 s CHOKE  
 L902 1-421-329-00 s CHOKE  
 L903 1-421-329-00 s CHOKE  
 L904 1-421-329-00 s CHOKE

L905 1-421-329-00 s CHOKE  
 L906 1-421-329-00 s CHOKE  
 L907 1-421-329-00 s CHOKE  
 L908 1-421-329-00 s CHOKE  
 L909 1-421-329-00 s CHOKE

L910 1-421-329-00 s CHOKE  
 L911 1-421-329-00 s CHOKE

LV200 1-407-563-00 s VAR 1  
 LV201 1-407-564-00 s VAR 1.5  
 LV500 1-407-563-00 s VAR 1

Q100 8-729-100-66 s 2SC1623  
 Q101 8-729-106-68 s 2SD1615A-GP  
 Q102 8-729-106-60 s 2SB1115A  
 Q103 8-729-102-07 s 2SC2223-F13  
 Q104 8-729-102-07 s 2SC2223-F13

Q105 8-729-109-43 s 2SK94-X3  
 Q106 8-729-102-07 s 2SC2223-F13  
 Q201 8-729-100-66 s 2SC1623  
 Q203 8-729-100-66 s 2SC1623  
 Q204 8-729-100-66 s 2SC1623

Q205 8-729-100-66 s 2SC1623  
 Q206 8-729-100-66 s 2SC1623  
 Q207 8-729-100-66 s 2SC1623  
 Q208 8-729-109-43 s 2SK94-X3  
 Q211 8-729-102-07 s 2SC2223-F13

Q212 8-729-102-07 s 2SC2223-F13  
 Q213 8-729-109-43 s 2SK94-X3  
 Q214 8-729-102-07 s 2SC2223-F13  
 Q215 8-729-100-76 s 2SA812  
 Q220 8-729-109-43 s 2SK94-X3

Ref.No. Parts No. SP Description

Q221 8-729-109-43 s 2SK94-X3  
 Q222 8-729-202-38 s 2SC3326N  
 Q223 8-729-800-44 s 2SK152-4  
 Q224 8-729-900-53 s DTC114EK  
 Q225 8-729-900-53 s DTC114EK

Q226 8-729-900-53 s DTC114EK  
 Q227 8-729-900-53 s DTC114EK  
 Q228 8-729-900-53 s DTC114EK  
 Q229 8-729-202-38 s 2SC3326N  
 Q230 8-729-202-38 s 2SC3326N

Q400 8-729-100-66 s 2SC1623  
 Q401 8-729-102-07 s 2SC2223-F13  
 Q402 8-729-102-07 s 2SC2223-F13  
 Q403 8-729-109-43 s 2SK94-X3  
 Q404 8-729-102-07 s 2SC2223-F13

Q500 8-729-100-66 s 2SC1623  
 Q501 8-729-100-66 s 2SC1623  
 Q503 8-729-100-66 s 2SC1623  
 Q504 8-729-100-66 s 2SC1623  
 Q505 8-729-100-66 s 2SC1623

Q512 8-729-102-07 s 2SC2223-F13  
 Q513 8-729-109-43 s 2SK94-X3  
 Q514 8-729-102-07 s 2SC2223-F13  
 Q515 8-729-102-07 s 2SC2223-F13  
 Q516 8-729-100-76 s 2SA812

Q610 8-729-106-68 s 2SD1615A-GP  
 Q611 8-729-106-60 s 2SB1115A  
 Q680 8-729-109-43 s 2SK94-X3  
 Q681 8-729-100-66 s 2SC1623  
 Q800 8-729-109-43 s 2SK94-X3

Q801 8-729-109-43 s 2SK94-X3  
 Q802 8-729-100-66 s 2SC1623  
 Q803 8-729-109-43 s 2SK94-X3

R101 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
 R105 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
 R106 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
 R107 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
 R111 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W

R114 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R115 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 18) R135 1-216-643-11 s METAL CHIP 470 0.50% 1/10W  
 R139 1-216-655-11 s METAL CHIP 1.5k 0.50% 1/10W  
 R140 1-216-653-11 s METAL CHIP 1.2k 0.50% 1/10W

R142 1-216-018-11 s CHIP 51 5% 1/10W  
 R149 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
 R205 1-216-665-11 s METAL CHIP 3.9k 0.50% 1/10W  
 R213 1-216-653-11 s METAL CHIP 1.2k 0.50% 1/10W  
 R218 1-216-669-11 s METAL CHIP 5.6k 0.50% 1/10W

R219 1-216-691-11 s METAL CHIP 47k 0.50% 1/10W  
 R220 1-216-674-11 s METAL CHIP 9.1k 0.50% 1/10W  
 R222 1-216-660-11 s METAL CHIP 2.4k 0.50% 1/10W  
 R249 1-216-682-11 s METAL CHIP 20k 0.50% 1/10W  
 R250 1-216-669-11 s METAL CHIP 5.6k 0.50% 1/10W

R251 1-216-682-11 s METAL CHIP 20k 0.50% 1/10W  
 R252 1-216-671-11 s METAL CHIP 6.8k 0.50% 1/10W  
 R254 1-216-695-11 s METAL CHIP 68k 0.50% 1/10W  
 R258 1-216-671-11 s METAL CHIP 6.8k 0.50% 1/10W  
 R259 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

R264	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R267	1-216-665-11	s	METAL CHIP 3.9k	0.50%	1/10W
R270	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R271	1-216-680-11	s	METAL CHIP 16k	0.50%	1/10W
R272	1-216-681-11	s	METAL CHIP 18k	0.50%	1/10W
R276	1-216-671-11	s	METAL CHIP 6.8k	0.50%	1/10W
R288	1-216-667-11	s	METAL CHIP 4.7k	0.50%	1/10W
R293	1-216-667-11	s	METAL CHIP 4.7k	0.50%	1/10W
R294	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R296	1-216-669-11	s	METAL CHIP 5.6k	0.50%	1/10W
R302	1-216-655-11	s	METAL CHIP 1.5k	0.50%	1/10W
R303	1-216-645-11	s	METAL CHIP 560	0.50%	1/10W
R304	1-216-018-00	s	CHIP 51	5%	1/10W
R312	1-216-649-11	s	METAL CHIP 820	0.50%	1/10W
R313	1-216-661-11	s	METAL CHIP 2.7k	0.50%	1/10W
R314	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W
R316	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R317	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R330	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R337	1-216-661-11	s	METAL CHIP 2.7k	0.50%	1/10W
R338	1-216-659-11	s	METAL CHIP 2.2k	0.50%	1/10W
R340	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R341	1-216-659-11	s	METAL CHIP 2.2k	0.50%	1/10W
R348	1-216-681-11	s	METAL CHIP 18k	0.50%	1/10W
R353	1-216-662-11	s	METAL CHIP 3k	0.50%	1/10W
R354	1-216-665-11	s	METAL CHIP 3.9k	0.50%	1/10W
R355	1-216-693-11	s	METAL CHIP 56k	0.50%	1/10W
R356	1-216-672-11	s	METAL CHIP 7.5k	0.50%	1/10W
R357	1-216-677-11	s	METAL CHIP 12k	0.50%	1/10W
R358	1-216-673-11	s	METAL CHIP 8.2k	0.50%	1/10W
R359	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W
R360	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W
R361	1-216-672-11	s	METAL CHIP 7.5k	0.50%	1/10W
R367	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R368	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W
R371	1-216-652-11	s	METAL CHIP 1.1k	0.50%	1/10W
R372	1-216-671-11	s	METAL CHIP 6.8k	0.50%	1/10W
R375	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W
R376	1-216-679-11	s	METAL CHIP 15k	0.50%	1/10W
R379	1-216-685-11	s	METAL CHIP 27k	0.50%	1/10W
R380	1-216-666-11	s	METAL CHIP 4.3k	0.50%	1/10W
R401	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W
R405	1-216-639-11	s	METAL CHIP 330	0.50%	1/10W
R406	1-216-639-11	s	METAL CHIP 330	0.50%	1/10W
R407	1-216-643-11	s	METAL CHIP 470	0.50%	1/10W
R411	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W
R412	1-216-669-11	s	METAL CHIP 5.6k	0.50%	1/10W
R426	1-216-677-11	s	METAL CHIP 12k	0.50%	1/10W
R431	1-216-655-11	s	METAL CHIP 1.5k	0.50%	1/10W
R432	1-216-653-11	s	METAL CHIP 1.2k	0.50%	1/10W
R433	1-216-018-00	s	CHIP 51	5%	1/10W
R438	1-216-659-11	s	METAL CHIP 2.2k	0.50%	1/10W
R507	1-216-634-11	s	METAL CHIP 200	0.50%	1/10W
R509	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W
R510	1-216-635-11	s	METAL CHIP 220	0.50%	1/10W
R511	1-216-655-11	s	METAL CHIP 1.5k	0.50%	1/10W
R512	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W
R513	1-216-619-11	s	METAL CHIP 47	0.50%	1/10W
R517	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W
R518	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W

Ref.No. Parts No. SP Description

R522	1-216-691-11	s	METAL CHIP 47k	0.50%	1/10W
R523	1-216-699-11	s	METAL CHIP 100k	0.50%	1/10W
R527	1-216-674-11	s	METAL CHIP 9.1k	0.50%	1/10W
R528	1-216-660-11	s	METAL CHIP 2.4k	0.50%	1/10W
R535	1-216-682-11	s	METAL CHIP 20k	0.50%	1/10W
R536	1-216-667-11	s	METAL CHIP 4.7k	0.50%	1/10W
R541	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R543	1-216-671-11	s	METAL CHIP 6.8k	0.50%	1/10W
R544	1-216-671-11	s	METAL CHIP 6.8k	0.50%	1/10W
R545	1-216-659-11	s	METAL CHIP 2.2k	0.50%	1/10W
R547	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R548	1-216-665-11	s	METAL CHIP 3.9k	0.50%	1/10W
R549	1-216-698-11	s	METAL CHIP 91k	0.50%	1/10W
R550	1-216-680-11	s	METAL CHIP 16k	0.50%	1/10W
R551	1-216-681-11	s	METAL CHIP 18k	0.50%	1/10W
R552	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R553	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R565	1-216-651-11	s	METAL CHIP 1k	0.50%	1/10W
R566	1-216-661-11	s	METAL CHIP 2.7k	0.50%	1/10W
R567	1-216-686-11	s	METAL CHIP 30k	0.50%	1/10W
17) R570	1-216-669-11	s	METAL CHIP 5.6k	0.50%	1/10W
18) R570	1-216-667-11	s	METAL CHIP 4.7k	0.50%	1/10W
R571	1-216-687-11	s	METAL CHIP 33k	0.50%	1/10W
R581	1-216-634-11	s	METAL CHIP 200	0.50%	1/10W
R585	1-216-645-11	s	METAL CHIP 560	0.50%	1/10W
R586	1-216-655-11	s	METAL CHIP 1.5k	0.50%	1/10W
R587	1-216-018-00	s	CHIP 51	5%	1/10W
R594	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R595	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R597	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R599	1-216-681-11	s	METAL CHIP 18k	0.50%	1/10W
R601	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W
R605	1-216-691-11	s	METAL CHIP 47k	0.50%	1/10W
R611	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R612	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R704	1-216-677-11	s	METAL CHIP 12k	0.50%	1/10W
R708	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W
R709	1-216-652-11	s	METAL CHIP 1.1k	0.50%	1/10W
R710	1-216-673-11	s	METAL CHIP 8.2k	0.50%	1/10W
R717	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R718	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R719	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R720	1-216-683-11	s	METAL CHIP 22k	0.50%	1/10W
R807	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W
R816	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W
R817	1-216-668-11	s	METAL CHIP 5.1k	0.50%	1/10W
RV100	1-237-515-21	s	VAR, CERMET 1k		
RV101	1-237-514-21	s	VAR, CERMET 500		
RV102	1-237-515-21	s	VAR, CERMET 1k		
RV103	1-237-515-21	s	VAR, CERMET 1k		
RV200	1-237-517-21	s	VAR, CERMET 5k		
RV201	1-237-516-21	s	VAR, CERMET 2k		
RV202	1-230-847-11	s	VAR, CERMET 500k		
RV203	1-237-518-21	s	VAR, CERMET 10k		
RV400	1-237-514-21	s	VAR, CERMET 500		
RV401	1-237-516-21	s	VAR, CERMET 2k		
RV402	1-237-515-21	s	VAR, CERMET 1k		
RV500	1-237-516-21	s	VAR, CERMET 2k		
RV501	1-237-516-21	s	VAR, CERMET 2k		
RV502	1-237-517-21	s	VAR, CERMET 5k		
RV503	1-237-518-21	s	VAR, CERMET 10k		
RV610	1-237-515-21	s	VAR, CERMET 1k		

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description
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S101	1-553-977-00	s	SLIDE
S200	1-553-977-00	s	SLIDE

TH201	1-800-198-XX	s	S-1K
TH202	1-800-202-XX	s	S-10K
TH501	1-800-198-XX	s	S-1K
TH502	1-800-202-XX	s	S-10K

## 17) TBC-7P BOARD

3) This board includes the SW-261 board.

A-6711-888-B o MOUNTED CIRCUIT BOARD, TBC-7P

C100	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C102	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C103	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C105	1-135-076-21	s	TANTAL CHIP	1	10% 35V
C108	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C110	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C111	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C115	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C121	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C124	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C125	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C126	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C128	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C130	1-163-033-00	s	CERAMIC CHIP	0.022	50V
4) C135	1-163-037-00	s	CERAMIC CHIP	0.022	10% 25V
C205	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C206	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C209	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C211	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C213	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C217	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C219	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C221	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C225	1-162-568-11	s	CERAMIC CHIP	0.33	25V
C226	1-162-638-11	s	CERAMIC CHIP	1	16V
C227	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C228	1-162-568-11	s	CERAMIC CHIP	0.33	25V
C229	1-162-638-11	s	CERAMIC CHIP	1	16V
C231	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C234	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C236	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C242	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C243	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C245	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C246	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C248	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C253	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C254	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C255	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C259	1-163-033-00	s	CERAMIC CHIP	0.022	50V

Ref.No.	Parts No.	SP	Description
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C263	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C265	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C270	1-162-638-11	s	CERAMIC CHIP	1	16V
C271	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C273	1-163-033-00	s	CERAMIC CHIP	0.022	50V

C276	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C277	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C281	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C284	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C286	1-124-462-00	s	ELECT	10	20% 16V

C288	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C290	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C291	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C293	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C295	1-163-033-00	s	CERAMIC CHIP	0.022	50V

C400	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C402	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C403	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C405	1-135-076-21	s	TANTAL CHIP	1	10% 35V
C408	1-163-033-00	s	CERAMIC CHIP	0.022	50V

C412	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C418	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C419	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C421	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C422	1-163-033-00	s	CERAMIC CHIP	0.022	50V

4) C424	1-163-037-11	s	CERAMIC CHIP	0.022	10% 25V
C504	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C505	1-124-462-00	s	ELECT	10	20% 16V
C509	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C511	1-163-033-00	s	CERAMIC CHIP	0.022	50V

C521	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C522	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C524	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C526	1-162-638-11	s	CERAMIC CHIP	1	16V
C527	1-162-568-11	s	CERAMIC CHIP	0.33	25V

C529	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C531	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C533	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C535	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C536	1-163-033-00	s	CERAMIC CHIP	0.022	50V

C537	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C540	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C542	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C545	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C548	1-163-033-00	s	CERAMIC CHIP	0.022	50V

C550	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C555	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C558	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C559	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C566	1-163-033-00	s	CERAMIC CHIP	0.022	50V

C569	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C575	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C578	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C581	1-163-033-00	s	CERAMIC CHIP	0.022	50V
4) C583	1-163-037-11	s	CERAMIC CHIP	0.022	10% 25V

C600	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C611	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C612	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C613	1-163-033-00	s	CERAMIC CHIP	0.022	50V
C615	1-163-033-00	s	CERAMIC CHIP	0.022	50V

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Ref.No.	Parts No.	SP	Description		Ref.No.	Parts No.	SP	Description
C651	1-163-033-00	s	CERAMIC CHIP 0.022	50V	FL100	1-236-006-13	s	LOW-PASS 7.0MHz
C701	1-163-033-00	s	CERAMIC CHIP 0.022	50V	FL400	1-236-162-11	s	LOW-PASS 4.2MHz
C704	1-163-033-00	s	CERAMIC CHIP 0.022	50V				
C706	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC101	8-749-901-45	s	SBX4002-01 (NEC)
C708	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC102	8-759-914-44	s	TL431CLPB (TI)
C750	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC103	8-759-908-17	s	TL082CPS (TI)
C801	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC105	8-752-032-55	s	CXA1096M (SONY)
C804	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC108	8-759-948-32	s	CXD1310AM (SONY)
C807	1-163-033-00	s	CERAMIC CHIP 0.022	50V				
C902	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC201	8-759-201-47	s	TA7357AP (TOSHIBA)
C905	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC203	8-759-941-27	s	MB4002PF (FUJITSU)
C908	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC205	8-759-941-27	s	MB4002PF (FUJITSU)
C911	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC206	8-759-907-81	s	SN74LS221NS (TI)
C914	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC207	8-759-908-17	s	TL082CPS (TI)
C917	1-163-033-00	s	CERAMIC CHIP 0.022	50V				
C920	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC208	8-759-941-17	s	SN74LS06NS (TI)
C923	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC209	8-759-012-00	s	MC10H116M (MOTOROLA)
C926	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC210	8-759-012-13	s	MC10H125M (MOTOROLA)
C929	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC211	8-759-230-23	s	CXD1045AQ (SONY)
C932	1-163-033-00	s	CERAMIC CHIP 0.022	50V	IC212	8-749-901-21	s	BX1461 (SONY)
C935	1-163-033-00	s	CERAMIC CHIP 0.022	50V				
CN108	1-506-746-11	s	DIN 48P		IC213	8-759-908-17	s	TL082CPS (TI)
3) CN109	1-506-748-31	s	DIN 96P		IC214	8-759-945-29	s	TL601CPS (TI)
4) CN109	1-506-748-11	s	DIN 96P		IC215	8-759-907-81	s	SN74LS221NS (TI)
					IC216	8-749-901-20	s	BX1460 (SONY)
					IC217	8-759-105-49	s	uPC319G2 (NEC)
D1	8-719-101-23	s	1SS123		IC218	8-759-205-21	s	TC74HC221F (TOSHIBA)
D100	8-719-105-82	s	RD5.1M-B2		IC219	8-759-205-06	s	TC74HC74F (TOSHIBA)
D200	8-719-106-08	s	RD6.2M-B2		IC220	8-759-908-17	s	TL082CPS (TI)
D202	8-719-915-43	s	FC54M		IC221	8-759-945-29	s	TL601CPS (TI)
D203	8-719-915-43	s	FC54M		IC222	8-759-100-97	s	uPC339G2 (NEC)
D204	8-719-915-43	s	FC54M		3) IC223	8-759-205-05	s	TC74HC32F (TOSHIBA)
D205	8-719-938-98	s	FC51M		4) IC223	8-759-205-08	s	TC74HC86F (TOSHIBA)
D206	8-719-938-98	s	FC51M		3) IC224	8-759-204-94	s	TC74HC00F (TOSHIBA)
D207	8-719-938-98	s	FC51M		4) IC224	8-759-204-98	s	TC74HC08F (TOSHIBA)
D208	8-719-101-23	s	1SS123		IC225	8-759-908-17	s	TL082CPS (TI)
D209	8-719-100-03	s	1S2835		IC226	8-759-945-29	s	TL601CPS (TI)
D210	8-719-105-82	s	RD5.1M-B2		IC228	8-759-908-17	s	TL082CPS (TI)
D211	8-719-106-62	s	RD11M-B2		IC231	8-759-204-98	s	TC74HC08F (TOSHIBA)
D212	8-719-938-98	s	FC51M		IC232	8-759-945-29	s	TL601CPS (TI)
D213	8-719-938-98	s	FC51M		IC234	8-759-205-17	s	TC74HC174F (TOSHIBA)
D400	8-719-105-82	s	RD5.1M-B2		4) IC235	8-759-205-12	s	TC74HC157F (TOSHIBA)
D503	8-719-915-43	s	FC54M		4) IC236	8-759-205-12	s	TC74HC157F (TOSHIBA)
D504	8-719-915-43	s	FC54M		4) IC237	8-759-908-17	s	TL082CPS (TI)
D505	8-719-915-43	s	FC54M		4) IC239	8-759-205-05	s	TC74HC32F (TOSHIBA)
D506	8-719-101-23	s	1SS123		4) IC240	8-759-945-29	s	TL061CPS (TI)
D507	8-719-106-62	s	RD11M-B2		4) IC241	8-759-100-93	s	uPC393G2 (NEC)
D508	8-719-105-82	s	RD5.1M-B2		IC401	8-749-901-45	s	SBX4002-01 (NEC)
D650	8-719-106-17	s	RD6.8M-B2		IC403	8-752-032-55	s	CXA1096M (SONY)
D680	8-719-101-23	s	1SS123		IC404	8-759-948-32	s	CXD1310AM (SONY)
D700	8-719-100-03	s	1S2835		IC501	8-759-204-94	s	TC74HC00F (TOSHIBA)
D704	8-719-105-82	s	RD5.1M-B2		IC502	8-759-201-47	s	TA7357AP (TOSHIBA)
D705	8-719-105-64	s	RD4.3M-B2		IC504	8-759-908-17	s	TL082CPS (TI)
D706	8-719-101-23	s	1SS123		IC505	8-759-941-17	s	SN74LS06NS (TI)
D707	8-719-106-17	s	RD6.8M-B2		IC506	8-759-012-13	s	MC10H125M (MOTOROLA)
					IC507	8-759-230-23	s	CXD1045AQ (SONY)
					IC508	8-749-901-21	s	BX1461 (SONY)
					IC509	8-759-908-17	s	TL082CPS (TI)
					IC510	8-759-945-29	s	TL601CPS (TI)
					IC511	8-749-901-20	s	BX1460 (SONY)
					IC512	8-759-907-81	s	SN74LS221NS (TI)
DL500	1-415-309-00	s	350ns					

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Ref.No.	Parts No.	SP	Description	Ref.No.	Parts No.	SP	Description
IC513	8-759-941-27	s	MB4002PF (FUJITSU)	Q105	8-729-109-44	s	2SK94
IC514	8-759-945-29	s	TL601CPS (TI)	Q106	8-729-102-06	s	2SC2223
IC516	8-759-908-17	s	TL082CPS (TI)	Q201	8-729-100-66	s	2SC1623
IC517	8-759-908-17	s	TL082CPS (TI)	Q203	8-729-100-66	s	2SC1623
IC519	8-759-205-08	s	TC74HC86F (TOSHIBA)	Q204	8-729-100-66	s	2SC1623
IC520	8-759-945-29	s	TL601CPS (TI)	Q205	8-729-100-66	s	2SC1623
4) IC521	8-759-205-05	s	TC74HC32F (TOSHIBA)	Q206	8-729-100-66	s	2SC1623
4) IC522	8-759-105-49	s	uPC319G2 (NEC)	Q207	8-729-100-66	s	2SC1623
IC605	8-759-941-27	s	MB4002PF (FUJITSU)	Q208	8-729-109-44	s	2SK94
IC610	8-759-914-44	s	TL431CLFB (TI)	3) Q209	8-729-109-44	s	2SK94
IC611	8-759-908-17	s	TL082CPS (TI)	3) Q210	8-729-109-44	s	2SK94
IC700	8-759-945-29	s	TL601CPS (TI)	Q211	8-729-102-06	s	2SC2223
IC701	8-752-015-81	s	CX20158 (SONY)	Q212	8-729-102-06	s	2SC2223
IC702	8-757-930-11	s	CX7930A (SONY)	Q213	8-729-109-44	s	2SK94
IC720	8-759-204-98	s	TC74HC08F (TOSHIBA)	Q214	8-729-102-06	s	2SC2223
IC800	8-759-945-29	s	TL601CPS (TI)	Q215	8-729-100-76	s	2SA812
IC801	8-752-015-81	s	CX20158 (SONY)	Q220	8-729-100-44	s	2SK94
IC802	8-757-930-11	s	CX7930A (SONY)	Q221	8-729-100-44	s	2SK94
IC803	8-759-907-81	s	SN74LS221NS (TI)	Q223	8-729-800-44	s	2SK152-4
L102	1-410-470-11	s	MICRO 10	4) Q224	8-729-202-38	s	2SC3326N
L103	1-410-470-11	s	MICRO 10	4) Q225	8-729-202-38	s	2SC3326N
L104	1-410-470-11	s	MICRO 10	4) Q226	8-729-202-38	s	2SC3326N
L205	1-408-879-21	s	MICRO 0.47	4) Q227	8-729-202-38	s	2SC3326N
L214	1-410-492-11	s	MICRO 680	4) Q228	8-729-202-38	s	2SC3326N
L219	1-408-461-21	s	MICRO 1.8	4) Q229	8-729-202-38	s	2SC3326N
L402	1-410-470-11	s	MICRO 10	4) Q230	8-729-202-38	s	2SC3326N
L403	1-410-470-11	s	MICRO 10	3) Q244	8-729-100-66	s	2SC1623
L406	1-410-470-11	s	MICRO 10	Q400	8-729-100-66	s	2SC1623
L507	1-410-488-21	s	MICRO 330	Q401	8-729-102-06	s	2SC2223
L508	1-408-879-21	s	MICRO 0.47	Q402	8-729-102-06	s	2SC2223
4) L651	1-410-484-00	s	MICRO 150	Q403	8-729-109-44	s	2SK94
L900	1-421-329-00	s	CHOKE	Q404	8-729-102-06	s	2SC2223
L901	1-421-329-00	s	CHOKE	Q500	8-729-100-66	s	2SC1623
L902	1-421-329-00	s	CHOKE	Q501	8-729-100-66	s	2SC1623
L903	1-421-329-00	s	CHOKE	Q503	8-729-100-66	s	2SC1623
L904	1-421-329-00	s	CHOKE	Q504	8-729-100-66	s	2SC1623
L905	1-421-329-00	s	CHOKE	Q505	8-729-100-66	s	2SC1623
L906	1-421-329-00	s	CHOKE	Q512	8-729-102-06	s	2SC2223
L907	1-421-329-00	s	CHOKE	Q513	8-729-100-44	s	2SK94
L908	1-421-329-00	s	CHOKE	Q514	8-729-102-06	s	2SC2223
L909	1-421-329-00	s	CHOKE	Q515	8-729-102-06	s	2SC2223
L910	1-421-329-00	s	CHOKE	Q516	8-729-100-76	s	2SA812
L911	1-421-329-00	s	CHOKE	Q610	8-729-106-68	s	2SD1615A-GP
3) LV200	1-410-286-11	s	VAR 1.0	Q611	8-729-106-60	s	2SB1115A
4) LV200	1-407-563-11	s	VAR 1.0	Q680	8-729-100-44	s	2SK94
3) LV201	1-410-286-11	s	VAR 1.0	Q681	8-729-100-66	s	2SC1623
4) LV201	1-407-563-11	s	VAR 1.0	Q800	8-729-100-44	s	2SK94
3) LV500	1-410-286-11	s	VAR 1.0	Q801	8-729-100-44	s	2SK94
4) LV500	1-407-563-11	s	VAR 1.0	Q802	8-729-100-66	s	2SC1623
Q100	8-729-100-66	s	2SC1623	R101	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
Q101	8-729-106-68	s	2SD1615A-GP	R105	1-216-639-11	s	METAL CHIP 330 0.50% 1/10W
Q102	8-729-106-60	s	2SB1115A	R106	1-216-639-11	s	METAL CHIP 330 0.50% 1/10W
Q103	8-729-102-06	s	2SC2223	R107	1-216-641-11	s	METAL CHIP 390 0.50% 1/10W
Q104	8-729-102-06	s	2SC2223	R111	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
				R114	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
				R115	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
				R139	1-216-655-11	s	METAL CHIP 1.5k 0.50% 1/10W
				R140	1-216-653-11	s	METAL CHIP 1.2k 0.50% 1/10W
				R142	1-216-018-00	s	CHIP 51 5% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description	Ref.No.	Parts No.	SP	Description
4)	R149	1-216-659-11	s METAL CHIP 2.2k 0.50Z 1/10W	R432	1-216-653-11	s	METAL CHIP 1.2k 0.50Z 1/10W
	R205	1-216-665-11	s METAL CHIP 3.9k 0.50Z 1/10W	R433	1-216-018-00	s	CHIP 51 5Z 1/10W
	R213	1-216-653-11	s METAL CHIP 1.2k 0.50Z 1/10W	4)	R438	1-216-659-11	s METAL CHIP 2.2k 0.50Z 1/10W
	R218	1-216-669-11	s METAL CHIP 5.6k 0.50Z 1/10W	R507	1-216-634-11	s	METAL CHIP 200 0.50Z 1/10W
	R219	1-216-691-11	s METAL CHIP 47k 0.50Z 1/10W	R509	1-216-635-11	s	METAL CHIP 220 0.50Z 1/10W
	R220	1-216-674-11	s METAL CHIP 9.1k 0.50Z 1/10W	R510	1-216-635-11	s	METAL CHIP 220 0.50Z 1/10W
	R222	1-216-660-11	s METAL CHIP 2.4k 0.50Z 1/10W	R511	1-216-655-11	s	METAL CHIP 1.5k 0.50Z 1/10W
	R249	1-216-682-11	s METAL CHIP 20k 0.50Z 1/10W	R512	1-216-651-11	s	METAL CHIP 1k 0.50Z 1/10W
	R250	1-216-669-11	s METAL CHIP 5.6k 0.50Z 1/10W	R513	1-216-619-11	s	METAL CHIP 47 0.50Z 1/10W
	R251	1-216-682-11	s METAL CHIP 20k 0.50Z 1/10W	R517	1-216-651-11	s	METAL CHIP 1k 0.50Z 1/10W
	R252	1-216-671-11	s METAL CHIP 6.8k 0.50Z 1/10W	R518	1-216-651-11	s	METAL CHIP 1k 0.50Z 1/10W
7)	R254	1-216-695-11	s METAL CHIP 68k 0.50Z 1/10W	R522	1-216-691-11	s	METAL CHIP 47k 0.50Z 1/10W
	R258	1-216-671-11	s METAL CHIP 6.8k 0.50Z 1/10W	R523	1-216-699-11	s	METAL CHIP 100k 0.50Z 1/10W
	R259	1-216-659-11	s METAL CHIP 2.2k 0.50Z 1/10W	R527	1-216-674-11	s	METAL CHIP 9.1k 0.50Z 1/10W
	R264	1-216-683-11	s METAL CHIP 22k 0.50Z 1/10W	R528	1-216-660-11	s	METAL CHIP 2.4k 0.50Z 1/10W
	R267	1-216-665-11	s METAL CHIP 3.9k 0.50Z 1/10W	R535	1-216-682-11	s	METAL CHIP 20k 0.50Z 1/10W
	R270	1-216-675-11	s METAL CHIP 10k 0.50Z 1/10W	R536	1-216-667-11	s	METAL CHIP 4.7k 0.50Z 1/10W
	R271	1-216-680-11	s METAL CHIP 16k 0.50Z 1/10W	R541	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
	R272	1-216-681-11	s METAL CHIP 18k 0.50Z 1/10W	R543	1-216-671-11	s	METAL CHIP 6.8k 0.50Z 1/10W
	R276	1-216-671-11	s METAL CHIP 6.8k 0.50Z 1/10W	R544	1-216-671-11	s	METAL CHIP 6.8k 0.50Z 1/10W
	R293	1-216-667-11	s METAL CHIP 4.7k 0.50Z 1/10W	R545	1-216-659-11	s	METAL CHIP 2.2k 0.50Z 1/10W
	R294	1-216-675-11	s METAL CHIP 10k 0.50Z 1/10W	R547	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
	R296	1-216-665-11	s METAL CHIP 3.9k 0.50Z 1/10W	R548	1-216-665-11	s	METAL CHIP 3.9k 0.50Z 1/10W
	R302	1-216-655-11	s METAL CHIP 1.5k 0.50Z 1/10W	R549	1-216-698-11	s	METAL CHIP 91k 0.50Z 1/10W
	R303	1-216-645-11	s METAL CHIP 560 0.50Z 1/10W	R550	1-216-680-11	s	METAL CHIP 16k 0.50Z 1/10W
	R304	1-216-018-00	s CHIP 51 5Z 1/10W	R551	1-216-681-11	s	METAL CHIP 18k 0.50Z 1/10W
3)	R312	1-216-642-11	s METAL CHIP 430 0.50Z 1/10W	R552	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
4)	R312	1-216-649-11	s METAL CHIP 820 0.50Z 1/10W	R553	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
	R313	1-216-661-11	s METAL CHIP 2.7k 0.50Z 1/10W	4)	R565	1-216-651-11	s METAL CHIP 1k 0.50Z 1/10W
	R314	1-216-686-11	s METAL CHIP 30k 0.50Z 1/10W	R566	1-216-661-11	s	METAL CHIP 2.7k 0.50Z 1/10W
	R316	1-216-683-11	s METAL CHIP 22k 0.50Z 1/10W	R567	1-216-686-11	s	METAL CHIP 30k 0.50Z 1/10W
	R317	1-216-683-11	s METAL CHIP 22k 0.50Z 1/10W	R581	1-216-634-11	s	METAL CHIP 200 0.50Z 1/10W
	R330	1-216-675-11	s METAL CHIP 10k 0.50Z 1/10W	R585	1-216-645-11	s	METAL CHIP 560 0.50Z 1/10W
	R338	1-216-659-11	s METAL CHIP 2.2k 0.50Z 1/10W	R586	1-216-655-11	s	METAL CHIP 1.5k 0.50Z 1/10W
	R340	1-216-675-11	s METAL CHIP 10k 0.50Z 1/10W	R587	1-216-018-00	s	CHIP 51 5Z 1/10W
	R341	1-216-659-11	s METAL CHIP 2.2k 0.50Z 1/10W	R594	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
7)	R348	1-216-681-11	s METAL CHIP 18k 0.50Z 1/10W	R595	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
4)	R353	1-216-662-11	s METAL CHIP 3k 0.50Z 1/10W	R597	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
4)	R356	1-216-672-11	s METAL CHIP 7.5k 0.50Z 1/10W	R599	1-216-681-11	s	METAL CHIP 18k 0.50Z 1/10W
4)	R357	1-216-677-11	s METAL CHIP 12k 0.50Z 1/10W	R600	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
4)	R358	1-216-673-11	s METAL CHIP 8.2k 0.50Z 1/10W	R601	1-216-651-11	s	METAL CHIP 1k 0.50Z 1/10W
4)	R359	1-216-679-11	s METAL CHIP 15k 0.50Z 1/10W	R605	1-216-691-11	s	METAL CHIP 47k 0.50Z 1/10W
4)	R360	1-216-679-11	s METAL CHIP 15k 0.50Z 1/10W	R611	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
4)	R361	1-216-672-11	s METAL CHIP 7.5k 0.50Z 1/10W	R612	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
4)	R367	1-216-683-11	s METAL CHIP 22k 0.50Z 1/10W	R704	1-216-677-11	s	METAL CHIP 12k 0.50Z 1/10W
4)	R368	1-216-651-11	s METAL CHIP 1k 0.50Z 1/10W	R708	1-216-663-11	s	METAL CHIP 3.3k 0.50Z 1/10W
4)	R371	1-216-652-11	s METAL CHIP 1.1k 0.50Z 1/10W	R709	1-216-652-11	s	METAL CHIP 1.1k 0.50Z 1/10W
4)	R372	1-216-671-11	s METAL CHIP 6.8k 0.50Z 1/10W	R710	1-216-673-11	s	METAL CHIP 8.2k 0.50Z 1/10W
4)	R375	1-216-651-11	s METAL CHIP 1k 0.50Z 1/10W	R717	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
4)	R376	1-216-679-11	s METAL CHIP 15k 0.50Z 1/10W	R718	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
4)	R379	1-216-685-11	s METAL CHIP 27k 0.50Z 1/10W	R719	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
4)	R380	1-216-666-11	s METAL CHIP 4.3k 0.50Z 1/10W	R720	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
	R401	1-216-651-11	s METAL CHIP 1k 0.50Z 1/10W	R803	1-216-652-11	s	METAL CHIP 1.1k 0.50Z 1/10W
	R405	1-216-639-11	s METAL CHIP 330 0.50Z 1/10W	R807	1-216-663-11	s	METAL CHIP 3.3k 0.50Z 1/10W
	R406	1-216-639-11	s METAL CHIP 330 0.50Z 1/10W	3)	R808	1-216-652-11	s METAL CHIP 1.1k 0.50Z 1/10W
	R407	1-216-647-11	s METAL CHIP 680 0.50Z 1/10W	3)	R809	1-216-673-11	s METAL CHIP 8.2k 0.50Z 1/10W
	R411	1-216-663-11	s METAL CHIP 3.3k 0.50Z 1/10W	R810	1-216-677-11	s	METAL CHIP 12k 0.50Z 1/10W
	R412	1-216-669-11	s METAL CHIP 5.6k 0.50Z 1/10W	R816	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
	R426	1-216-677-11	s METAL CHIP 12k 0.50Z 1/10W	R817	1-216-668-11	s	METAL CHIP 5.1k 0.50Z 1/10W
	R431	1-216-655-11	s METAL CHIP 1.5k 0.50Z 1/10W				

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Ref.No.	Parts No.	SP	Description
RV100	1-237-51 5-21	s	VAR, CERMET 1k
RV101	1-237-51 4-21	s	VAR, CERMET 500
RV102	1-237-51 5-21	s	VAR, CERMET 1k
4) RV103	1-237-51 5-21	s	VAR, CERMET 1k
RV200	1-237-51 7-21	s	VAR, CERMET 5k
RV201	1-237-51 6-21	s	VAR, CERMET 2k
RV203	1-237-51 8-21	s	VAR, CERMET 10k
RV400	1-237-51 4-21	s	VAR, CERMET 500
RV401	1-237-51 6-21	s	VAR, CERMET 2k
4) RV402	1-237-51 5-21	s	VAR, CERMET 1k
RV500	1-237-51 6-21	s	VAR, CERMET 2k
RV501	1-237-51 6-21	s	VAR, CERMET 2k
RV502	1-237-51 7-21	s	VAR, CERMET 5k
4) RV503	1-237-51 8-21	s	VAR, CERMET 10k
RV610	1-237-51 5-21	s	VAR, CERMET 1k
S100	1-553-977-00	s	SLIDE
S101	1-553-977-00	s	SLIDE
S200	1-553-977-00	s	SLIDE
S400	1-553-977-00	s	SLIDE

TH201	1-800-198-11	s	S-1K
TH202	1-800-202-XX	s	S-10K
TH501	1-800-198-11	s	S-1K
TH502	1-800-202-XX	s	S-10K

## 17) TBC-8P BOARD

This board includes the NR-25 board.

A-6711-889-C o MOUNTED CIRCUIT BOARD, TBC-8P

C100	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C101	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C102	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C103	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C104	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C105	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C106	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C107	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C108	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C113	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C114	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C117	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C118	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C120	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C122	1-162-638-11	s	CERAMIC CHIP 1 16V
C137	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C138	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C139	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C140	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C142	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C144	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C145	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C146	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C147	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C200	1-162-637-11	s	CERAMIC CHIP 0.47 16V

C201	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C202	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C205	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C207	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C208	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C210	1-162-638-11	s	CERAMIC CHIP 1 16V
C211	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C212	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C213	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C214	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C216	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C218	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C219	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C221	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C222	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C300	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C301	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C400	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C401	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C402	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C403	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C408	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C409	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C420	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C421	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C422	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C423	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C428	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C442	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C443	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C444	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C500	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C501	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C502	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C503	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C504	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C507	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C509	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C511	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C512	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C513	1-162-638-11	s	CERAMIC CHIP 1 16V
C514	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C518	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C520	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C521	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C523	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C524	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C525	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C526	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C527	1-162-638-11	s	CERAMIC CHIP 1 16V
C530	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C532	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C535	1-162-637-11	s	CERAMIC CHIP 0.47 16V
C536	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C540	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C543	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C901	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C902	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C904	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C906	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V

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Ref.No.	Parts No.	SP	Description	Ref.No.	Parts No.	SP	Description
C911	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC502	8-759-208-88	s	CXD1131Q (SONY)
C913	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC503	8-759-012-13	s	MC10H125M (MOTOROLA)
C915	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC504	8-759-204-94	s	TC74HC00F (TOSHIBA)
C917	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC505	8-759-001-98	s	MC10198L (MOTOROLA)
C918	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC506	8-759-933-52	s	MB40778P (FUJITSU)
C920	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC507	8-759-933-52	s	MB40778P (FUJITSU)
CN106	1-506-746-11	s	DIN 48P	IC508	8-759-907-81	s	SN74LS221NS (TI)
3) CN107	1-506-748-31	s	DIN 96P	IC509	8-759-745-64	s	NJM4560M (JRC)
4) CN107	1-506-748-11	s	DIN 96P	IC510	8-759-204-98	s	TC74HC08F (TOSHIBA)
				IC512	8-759-205-03	s	TC74HC27F (TOSHIBA)
				IC900	8-759-914-44	s	TL431CLPB (TI)
10) CV101	1-141-245-00	s	TRIMMER, CERAMIC 30pF	L100	1-410-470-11	s	MICRO 10
11) CV101	1-141-404-11	s	VAR, TRIMMER 30pF	L101	1-410-470-11	s	MICRO 10
10) CV102	1-141-245-00	s	TRIMMER, CERAMIC 30pF	L102	1-410-470-11	s	MICRO 10
11) CV102	1-141-404-11	s	VAR, TRIMMER 30pF	L103	1-410-470-11	s	MICRO 10
10) CV103	1-141-245-00	s	TRIMMER, CERAMIC 30pF	L200	1-410-478-11	s	MICRO 47
11) CV103	1-141-404-11	s	VAR, TRIMMER 30pF	L201	1-410-478-11	s	MICRO 47
D201	8-719-105-52	s	RD3.6M-B2	L202	1-410-478-11	s	MICRO 47
D202	8-719-101-23	s	1SS123	L203	1-410-478-11	s	MICRO 47
D400	8-719-101-23	s	1SS123	L300	1-410-478-11	s	MICRO 47
D500	8-719-106-17	s	RD6.8M-B2	L301	1-410-478-11	s	MICRO 47
D501	8-719-106-17	s	RD6.8M-B2	L400	1-410-470-11	s	MICRO 10
IC100	8-759-012-13	s	MC10H125M (MOTOROLA)	L401	1-410-470-11	s	MICRO 10
IC101	8-759-942-28	s	CXD1022CQ (SONY)	L500	1-410-478-11	s	MICRO 47
IC102	8-759-208-76	s	CXD1023AQ (SONY)	L501	1-410-478-11	s	MICRO 47
IC103	8-749-901-39	s	SBX4001-01 (FUJITSU)	L502	1-410-478-11	s	MICRO 47
IC104	8-759-201-41	s	TD62901P (TOSHIBA)	L503	1-410-478-11	s	MICRO 47
IC106	8-759-745-64	s	NJM4560M (JRC)	L504	1-410-478-11	s	MICRO 47
IC107	8-759-945-29	s	TL601CPS (TI)	L505	1-410-478-11	s	MICRO 47
IC108	8-759-904-80	s	74F04PC (FSC)	L900	1-421-329-00	s	CHOKE
IC109	8-759-204-96	s	TC74HC04F (TOSHIBA)	L901	1-421-329-00	s	CHOKE
IC110	8-759-204-96	s	TC74HC04F (TOSHIBA)	L902	1-421-329-00	s	CHOKE
IC112	8-759-948-35	s	CXD1309BQ (SONY)	L903	1-421-329-00	s	CHOKE
IC113	8-759-948-37	s	CXD1326AQ (SONY)	L904	1-421-329-00	s	CHOKE
IC114	8-759-930-50	s	SN74LS157NS (TI)	Q201	8-729-100-66	s	2SC1623
IC200	8-752-322-72	s	CXK1202S (SONY)	Q202	8-729-102-06	s	2SC2223
IC201	8-759-208-88	s	CXD1131Q (SONY)	Q203	8-729-102-06	s	2SC2223
IC202	8-759-745-64	s	NJM4560M (JRC)	Q204	8-729-100-66	s	2SC1623
IC203	8-759-933-52	s	MB40778P (FUJITSU)	Q205	8-729-109-44	s	2SK94
IC204	8-759-745-64	s	NJM4560M (JRC)	Q400	8-729-100-66	s	2SC1623
IC400	8-759-942-28	s	CXD1022CQ (SONY)	Q401	8-729-100-76	s	2SA812
IC401	8-759-208-76	s	CXD1023AQ (SONY)	Q402	8-729-100-76	s	2SA812
IC402	8-749-901-39	s	SBX4001-01 (FUJITSU)	Q500	8-729-100-66	s	2SC1623
IC403	8-759-205-08	s	TC74HC86F (TOSHIBA)	Q501	8-729-100-66	s	2SC1623
IC404	8-759-205-21	s	TC74HC221F (TOSHIBA)	Q502	8-729-100-66	s	2SC1623
IC405	8-749-901-21	s	BX1461 (SONY)	Q503	8-729-100-66	s	2SC1623
IC406	8-759-200-81	s	TC4053BF (TOSHIBA)	Q504	8-729-100-66	s	2SC1623
IC407	8-759-908-17	s	TL082CPS (TI)	Q505	8-729-100-66	s	2SC1623
IC408	8-759-907-81	s	SN74LS221NS (TI)	Q900	8-729-106-68	s	2SD1615A-GP
IC409	8-759-204-96	s	TC74HC04F (TOSHIBA)	R138	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
IC500	8-752-322-72	s	CXK1202S (SONY)	R139	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
IC501	8-752-322-72	s	CXK1202S (SONY)	R140	1-216-680-11	s	METAL CHIP 16k 0.50% 1/10W
				R141	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
				R142	1-216-662-11	s	METAL CHIP 3k 0.50% 1/10W

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Ref.No.	Parts No.	SP	Description
R143	1-216-667-11	s	METAL CHIP 4.7k 0.50Z 1/10W
R144	1-216-676-11	s	METAL CHIP 11k 0.50Z 1/10W
R145	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
R146	1-216-672-11	s	METAL CHIP 7.5k 0.50Z 1/10W
R202	1-216-672-11	s	METAL CHIP 7.5k 0.50Z 1/10W
R203	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R204	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R205	1-216-661-11	s	METAL CHIP 2.7k 0.50Z 1/10W
R206	1-216-674-11	s	METAL CHIP 9.1k 0.50Z 1/10W
R208	1-216-677-11	s	METAL CHIP 12k 0.50Z 1/10W
R209	1-216-676-11	s	METAL CHIP 11k 0.50Z 1/10W
R214	1-216-619-11	s	METAL CHIP 47 0.50Z 1/10W
R216	1-216-660-11	s	METAL CHIP 2.4k 0.50Z 1/10W
R217	1-216-672-11	s	METAL CHIP 7.5k 0.50Z 1/10W
R220	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R223	1-216-678-11	s	METAL CHIP 13k 0.50Z 1/10W
R224	1-216-653-11	s	METAL CHIP 1.2k 0.50Z 1/10W
R225	1-216-655-11	s	METAL CHIP 1.5k 0.50Z 1/10W
R226	1-216-641-11	s	METAL CHIP 390 0.50Z 1/10W
R227	1-216-655-11	s	METAL CHIP 1.5k 0.50Z 1/10W
R229	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R418	1-216-677-11	s	METAL CHIP 12k 0.50Z 1/10W
R424	1-216-683-11	s	METAL CHIP 22k 0.50Z 1/10W
R425	1-216-673-11	s	METAL CHIP 8.2k 0.50Z 1/10W
R426	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
R427	1-216-655-11	s	METAL CHIP 1.5k 0.50Z 1/10W
R428	1-216-655-11	s	METAL CHIP 1.5k 0.50Z 1/10W
R430	1-216-659-11	s	METAL CHIP 2.2k 0.50Z 1/10W
R432	1-216-667-11	s	METAL CHIP 4.7k 0.50Z 1/10W
R433	1-216-667-11	s	METAL CHIP 4.7k 0.50Z 1/10W
R510	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R511	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R512	1-216-672-11	s	METAL CHIP 7.5k 0.50Z 1/10W
R513	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R514	1-216-661-11	s	METAL CHIP 2.7k 0.50Z 1/10W
R515	1-216-674-11	s	METAL CHIP 9.1k 0.50Z 1/10W
R520	1-216-646-11	s	METAL CHIP 620 0.50Z 1/10W
R521	1-216-653-11	s	METAL CHIP 1.2k 0.50Z 1/10W
R524	1-216-624-11	s	METAL CHIP 75 0.50Z 1/10W
R529	1-216-660-11	s	METAL CHIP 2.4k 0.50Z 1/10W
R530	1-216-674-11	s	METAL CHIP 9.1k 0.50Z 1/10W
R535	1-216-646-11	s	METAL CHIP 620 0.50Z 1/10W
R536	1-216-653-11	s	METAL CHIP 1.2k 0.50Z 1/10W
R539	1-216-624-11	s	METAL CHIP 75 0.50Z 1/10W
R540	1-216-677-11	s	METAL CHIP 12k 0.50Z 1/10W
R541	1-216-660-11	s	METAL CHIP 2.4k 0.50Z 1/10W
R542	1-216-678-11	s	METAL CHIP 13k 0.50Z 1/10W
R546	1-216-635-11	s	METAL CHIP 220 0.50Z 1/10W
R549	1-216-682-11	s	METAL CHIP 20k 0.50Z 1/10W
R571	1-216-635-11	s	METAL CHIP 220 0.50Z 1/10W
R572	1-216-635-11	s	METAL CHIP 220 0.50Z 1/10W
R573	1-216-677-11	s	METAL CHIP 12k 0.50Z 1/10W
6) R605	1-216-685-11	s	METAL CHIP 27k 0.50Z 1/10W
7) R605	1-216-679-11	s	METAL CHIP 15k 0.50Z 1/10W
R901	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W
R902	1-216-675-11	s	METAL CHIP 10k 0.50Z 1/10W

Ref.No.	Parts No.	SP	Description
RV200	1-237-501-21	s	VAR, CERMET 2k
RV400	1-237-514-21	s	VAR, CERMET 500
RV500	1-237-501-21	s	VAR, CERMET 2k
RV501	1-237-501-21	s	VAR, CERMET 2k
RV502	1-237-499-21	s	VAR, CERMET 500

S500 1-554-149-00 s DIP

#### TBC-9P BOARD

A-6711-890-A o MOUNTED CIRCUIT BOARD, TBC-9P

Ref.No.	Parts No.	SP	Description
C3	1-162-638-11	s	CERAMIC CHIP 1 16V
C4	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C5	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C9	1-135-083-00	s	TANTAL CHIP 0.47 10Z 25V
C10	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C13	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C15	1-124-462-00	s	ELECT 10 20Z 16V
C17	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C19	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C20	1-135-083-00	s	TANTAL CHIP 0.47 10Z 25V
C21	1-124-462-00	s	ELECT 10 20Z 16V
C22	1-124-462-00	s	ELECT 10 20Z 16V
C24	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C25	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C27	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C32	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C33	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C35	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C36	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C38	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C39	1-162-638-11	s	CERAMIC CHIP 1 16V
C41	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C43	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C45	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C47	1-162-638-11	s	CERAMIC CHIP 1 16V
C49	1-163-241-00	s	CERAMIC CHIP 39pF 5Z 50V
C50	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C52	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C55	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C59	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C60	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C64	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C66	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C73	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C75	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C77	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C79	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C81	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C83	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C86	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C89	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C91	1-135-083-00	s	TANTAL CHIP 0.47 10Z 25V
C92	1-124-462-00	s	ELECT 10 20Z 16V
C93	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V
C96	1-163-037-11	s	CERAMIC CHIP 0.022 10Z 25V

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Ref.No.	Parts No.	SP	Description				Ref.No.	Parts No.	SP	Description
C98	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC1	8-759-204-94	s	TC74HC00F (TOSHIBA)
C99	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC2	8-752-006-12	s	CX20061 (SONY)
C101	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC4	8-752-335-47	s	CXD1216M (SONY)
C102	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC5	8-759-208-11	s	TC4053BFHB (TOSHIBA)
C103	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC6	8-752-332-67	s	CXD1217M (SONY)
C104	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC7	8-759-239-58	s	TC74HC221AF (TOSHIBA)
C105	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC8	8-759-205-06	s	TC74HC74F (TOSHIBA)
C106	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC9	8-759-239-58	s	TC74HC221AF (TOSHIBA)
C107	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC10	8-752-332-67	s	CXD1217M (SONY)
C108	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC11	8-759-205-08	s	TC74HC86F (TOSHIBA)
C109	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC12	8-759-908-17	s	TL082CPS (TI)
C111	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC13	8-759-902-88	s	SN74LS123NS (TI)
C113	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC14	8-759-700-95	s	NJM1496M (JRC)
C114	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC16	8-759-205-05	s	TC74HC32F (TOSHIBA)
C115	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC17	8-759-100-93	s	uPC393G2 (NEC)
C117	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC18	8-759-908-17	s	TL082CPS (TI)
C119	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC19	8-759-008-52	s	MC74HC123AF (MOTOROLA)
C123	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC20	8-759-908-15	s	TL431CLP (TI)
C124	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC21	8-752-335-47	s	CXD1216M (SONY)
C125	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC22	8-759-207-66	s	CXD1024Q (SONY)
C126	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC23	8-752-332-67	s	CXD1217M (SONY)
C127	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC24	8-759-918-35	s	CX20162 (SONY)
C129	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC25	8-759-904-84	s	74F74PC (FSC)
C132	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC26	8-759-929-83	s	SN74LS11NS (TI)
C134	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC27	8-759-205-06	s	TC74HC74F (TOSHIBA)
C135	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC28	8-759-204-96	s	TC74HC04F (TOSHIBA)
C137	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC29	8-759-205-23	s	TC74HC244F (TOSHIBA)
C200	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC30	8-759-930-57	s	SN74LS164NS (TI)
C201	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC31	8-759-012-02	s	MC10H124M (MOTOROLA)
C203	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC32	8-759-205-23	s	TC74HC244F (TOSHIBA)
C204	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC33	8-759-008-52	s	MC74HC123AF (MOTOROLA)
C208	1-135-091-00	s	TANTAL CHIP 1	10%	16V		IC34	8-759-929-83	s	SN74LS11NS (TI)
C210	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC35	8-759-205-08	s	TC74HC86F (TOSHIBA)
C214	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC36	8-759-930-57	s	SN74LS164NS (TI)
C215	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC37	8-759-908-15	s	TL431CLP (TI)
C216	1-135-096-21	s	TANTAL CHIP 4.7	10%	16V		IC40	8-759-205-06	s	TC74HC74F (TOSHIBA)
C217	1-102-074-00	s	CERAMIC 1000pF	10%	50V		IC41	8-759-907-81	s	SN74LS221NS (TI)
C301	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC42	8-759-907-81	s	SN74LS221NS (TI)
C302	1-163-037-11	s	CERAMIC CHIP 0.022	10%	25V		IC200	8-759-941-27	s	MB4002PF (FUJITSU)
							IC201	8-759-908-17	s	TL082CPS (TI)
							IC202	8-759-945-29	s	TL601CPS (TI)
3) CN101	1-506-748-31	s	DIN 96P				IC203	8-759-105-49	s	uPC319G2 (NEC)
4) CN101	1-506-748-11	s	DIN 96P				IC204	8-759-239-58	s	TC74HC221AF (TOSHIBA)
							IC300	8-759-204-96	s	TC74HC04F (TOSHIBA)
							IC301	8-759-205-23	s	TC74HC244F (TOSHIBA)
CP1	1-579-103-21	s	CRYSTAL 17.734475MHz				IC302	8-759-930-57	s	SN74LS164NS (TI)
CP2	1-577-294-11	s	CRYSTAL 14.1875MHz				IC303	8-759-930-57	s	SN74LS164NS (TI)
CP3	1-577-294-11	s	CRYSTAL 14.1875MHz							
D1	8-719-100-03	s	1S2835			L1	1-410-478-11	s	MICRO 47	
D200	8-719-101-23	s	1SS123			L2	1-410-478-11	s	MICRO 47	
D201	8-719-105-58	s	RD3.9M-B2			L3	1-410-478-11	s	MICRO 47	
D202	8-719-101-23	s	1SS123			L4	1-410-478-11	s	MICRO 47	
D203	8-719-100-03	s	1S2835			L5	1-410-478-11	s	MICRO 47	
D204	8-719-106-08	s	RD6.2M-B2			L6	1-410-478-11	s	MICRO 47	
D205	8-719-101-23	s	1SS123			L7	1-410-478-11	s	MICRO 47	
						L8	1-410-478-11	s	MICRO 47	

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Ref.No.	Parts No.	SP	Description
L11	1-410-478-11	s	MICRO 47
L12	1-410-478-11	s	MICRO 47
L15	1-410-470-11	s	MICRO 10
L16	1-410-478-11	s	MICRO 47
L17	1-410-478-11	s	MICRO 47
L19	1-410-478-11	s	MICRO 47
L20	1-410-478-11	s	MICRO 47
L21	1-410-478-11	s	MICRO 47
L22	1-410-478-11	s	MICRO 47
L23	1-410-478-11	s	MICRO 47
L24	1-410-478-11	s	MICRO 47
L25	1-410-478-11	s	MICRO 47
L26	1-410-478-11	s	MICRO 47
L27	1-410-478-11	s	MICRO 47
L28	1-421-329-00	s	CHOKE
L29	1-421-329-00	s	CHOKE
L31	1-421-329-00	s	CHOKE
L32	1-421-329-00	s	CHOKE
L34	1-421-329-00	s	CHOKE
L35	1-410-478-11	s	MICRO 47
L36	1-410-478-11	s	MICRO 47
L200	1-410-478-11	s	MICRO 47
L201	1-410-482-31	s	MICRO 100
L202	1-410-478-11	s	MICRO 47
Q1	8-729-100-66	s	2SC1623
Q2	8-729-100-66	s	2SC1623
Q3	8-729-100-66	s	2SC1623
Q6	8-729-100-76	s	2SA812
Q7	8-729-100-66	s	2SC1623
Q8	8-729-100-76	s	2SA812
Q9	8-729-100-66	s	2SC1623
Q10	8-729-100-66	s	2SC1623
Q11	8-729-100-66	s	2SC1623
Q12	8-729-100-66	s	2SC1623
Q13	8-729-100-66	s	2SC1623
Q14	8-729-122-63	s	2SA1226
Q15	8-729-100-66	s	2SC1623
Q16	8-729-100-66	s	2SC1623
Q17	8-729-122-63	s	2SA1226
Q18	8-729-100-66	s	2SC1623
Q19	8-729-100-66	s	2SC1623
Q20	8-729-106-68	s	2SD1615A-GP
Q200	8-729-100-66	s	2SC1623
Q201	8-729-109-44	s	2SK94
Q202	8-729-109-44	s	2SK94
Q203	8-729-100-66	s	2SC1623
Q204	8-729-109-44	s	2SK94
Q205	8-729-100-66	s	2SC1623
R23	1-216-673-11	s	METAL CHIP 8.2k 0.50% 1/10W
R24	1-216-673-11	s	METAL CHIP 8.2k 0.50% 1/10W
R28	1-216-672-11	s	METAL CHIP 7.5k 0.50% 1/10W
R29	1-216-676-11	s	METAL CHIP 11k 0.50% 1/10W
R34	1-216-669-11	s	METAL CHIP 5.6k 0.50% 1/10W
R35	1-216-671-11	s	METAL CHIP 6.8k 0.50% 1/10W
R39	1-216-691-11	s	METAL CHIP 47k 0.50% 1/10W
R40	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
R41	1-216-682-11	s	METAL CHIP 20k 0.50% 1/10W
14) R42	1-216-653-11	s	METAL CHIP 1.2k 0.50% 1/10W

Ref.No.	Parts No.	SP	Description
15) R42	1-216-656-11	s	METAL CHIP 1.6k 0.50% 1/10W
R43	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R47	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R48	1-216-683-11	s	METAL CHIP 22k 0.50% 1/10W
R49	1-216-681-11	s	METAL CHIP 18k 0.50% 1/10W
R50	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R53	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R55	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
R56	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
R58	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R60	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R61	1-216-636-11	s	METAL CHIP 240 0.50% 1/10W
R62	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
R63	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
R65	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R68	1-216-674-11	s	METAL CHIP 9.1k 0.50% 1/10W
R69	1-216-650-11	s	METAL CHIP 910 0.50% 1/10W
R70	1-216-649-11	s	METAL CHIP 820 0.50% 1/10W
R74	1-216-667-11	s	METAL CHIP 4.7k 0.50% 1/10W
R75	1-216-641-11	s	METAL CHIP 390 0.50% 1/10W
R76	1-216-018-00	s	CHIP 51 5% 1/10W
R77	1-216-018-00	s	CHIP 51 5% 1/10W
R78	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R79	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R80	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R81	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R82	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R83	1-216-635-11	s	METAL CHIP 220 0.50% 1/10W
R86	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R87	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R88	1-216-643-11	s	METAL CHIP 470 0.50% 1/10W
R92	1-216-624-11	s	METAL CHIP 75 0.50% 1/10W
R93	1-216-699-11	s	METAL CHIP 100k 0.50% 1/10W
R94	1-216-679-11	s	METAL CHIP 15k 0.50% 1/10W
R95	1-216-624-11	s	METAL CHIP 75 0.50% 1/10W
R97	1-216-674-11	s	METAL CHIP 9.1k 0.50% 1/10W
R98	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R103	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R104	1-216-660-11	s	METAL CHIP 2.4k 0.50% 1/10W
R105	1-216-665-11	s	METAL CHIP 3.9k 0.50% 1/10W
R108	1-216-690-11	s	METAL CHIP 43k 0.50% 1/10W
R109	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R110	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R120	1-216-669-11	s	METAL CHIP 5.6k 0.50% 1/10W
R138	1-216-670-11	s	METAL CHIP 6.2k 0.50% 1/10W
R139	1-216-661-11	s	METAL CHIP 2.7k 0.50% 1/10W
R181	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R182	1-216-675-11	s	METAL CHIP 10k 0.50% 1/10W
R183	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R184	1-216-685-11	s	METAL CHIP 27k 0.50% 1/10W
R185	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R186	1-216-685-11	s	METAL CHIP 27k 0.50% 1/10W
R189	1-216-661-11	s	METAL FILM 2.7k 0.50% 1/10W
R216	1-216-649-11	s	METAL CHIP 820 0.50% 1/10W
R221	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R222	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R229	1-216-668-11	s	METAL CHIP 5.1k 0.50% 1/10W
R230	1-216-682-11	s	METAL CHIP 20k 0.50% 1/10W
14) R332	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
15) R332	1-216-657-11	s	METAL CHIP 1.8k 0.50% 1/10W
R333	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

RV1 1-237-517-21 s VAR, CERMET 5k  
 RV2 1-237-517-21 s VAR, CERMET 5k  
 RV3 1-237-517-21 s VAR, CERMET 5k  
 RV4 1-237-519-21 s VAR, CERMET 20k  
 RV5 1-237-516-21 s VAR, CERMET 2k

RV6 1-237-515-21 s VAR, CERMET 1k  
 RV7 1-237-514-21 s VAR, CERMET 500  
 RV8 1-237-518-21 s VAR, CERMET 10k  
 RV9 1-237-514-21 s VAR, CERMET 500  
 RV10 1-237-518-21 s VAR, CERMET 10k

RV11 1-237-517-21 s VAR, CERMET 5k  
 RV12 1-237-518-21 s VAR, CERMET 10k  
 RV13 1-237-518-21 s VAR, CERMET 10k  
 RV14 1-237-518-21 s VAR, CERMET 10k  
 RV15 1-237-517-21 s VAR, CERMET 5k

S3 1-554-150-00 s DIP  
 S4 1-554-150-00 s DIP

TH1 1-800-202-XX s S-10K

18) TBC-12P BOARD

This board includes the NR-32 board.

A-6726-078-A o MOUNTED CIRCUIT BOARD, TBC-12P

C100 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C101 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C102 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C103 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C104 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C105 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C106 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C107 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C108 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C109 1-162-638-11 s CERAMIC CHIP 1 16V  
 C110 1-162-638-11 s CERAMIC CHIP 1 16V  
 C113 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C114 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C117 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C118 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C120 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C122 1-162-638-11 s CERAMIC CHIP 1 16V  
 C137 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C138 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C139 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C140 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C142 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C144 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C145 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C146 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C147 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C200 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C201 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C202 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C205 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

Ref.No. Parts No. SP Description

C207 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C208 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C210 1-162-638-11 s CERAMIC CHIP 1 16V  
 C211 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C212 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C213 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C214 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C216 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C218 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C221 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C222 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C300 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C301 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C400 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C401 1-162-637-11 s CERAMIC CHIP 0.47 16V

C402 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C403 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C404 1-162-638-11 s CERAMIC CHIP 1 16V  
 C405 1-162-638-11 s CERAMIC CHIP 1 16V  
 C408 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C409 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C420 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C421 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C422 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C423 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C428 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C442 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C443 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C444 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C500 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C501 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C502 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C503 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C504 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C507 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C509 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C511 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C512 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C513 1-162-638-11 s CERAMIC CHIP 1 16V  
 C514 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C518 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C520 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C521 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C523 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C524 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C525 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C526 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C527 1-162-638-11 s CERAMIC CHIP 1 16V  
 C530 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C532 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C535 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C536 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C540 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C543 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C603 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C801 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C802 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C803 1-162-637-11 s CERAMIC CHIP 0.47 16V  
 C804 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C805 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

C807 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C808 1-162-637-11 s CERAMIC CHIP 0.47 16V  
C901 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C902 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C904 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C906 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C911 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C913 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C915 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C917 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

C918 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
C920 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V

CN106 1-569-465-11 s DIN 48P  
CN107 1-568-144-11 s DIN 96P

CV102 1-141-404-11 s VAR, TRIMMER 30pF  
CV103 1-141-404-11 s VAR, TRIMMER 30pF

D201 8-719-105-52 s RD3.6M-B2  
D202 8-719-104-34 s 1S2836  
D400 8-719-100-03 s 1S2835  
D500 8-719-106-17 s RD6.8M-B2  
D501 8-719-106-17 s RD6.8M-B2

D801 8-719-100-03 s 1S2835  
D802 8-719-100-03 s 1S2835  
D803 8-719-100-03 s 1S2835  
D900 8-719-100-03 s 1S2835

DL250 1-415-546-11 s 50ns

IC100 8-759-012-13 s MC10HL25M (MOTOROLA)  
IC102 8-759-208-76 s CXD1023AQ (SONY)  
IC103 8-741-159-60 s SBX1596-01 (SONY)  
IC104 8-759-201-41 s TD62901P (TOSHIBA)  
IC106 8-759-981-96 s RC4560M (RAYTHEON)

IC107 8-759-945-29 s TL601CPS (TI)  
IC108 8-759-915-41 s 74F02PC (FSC)  
IC109 8-759-204-96 s TC74HC04F (TOSHIBA)  
IC110 8-759-204-96 s TC74HC04F (TOSHIBA)  
IC112 8-759-983-11 s CXD8024Q (SONY)

IC113 8-759-948-37 s CXD1326AQ (SONY)  
IC114 8-759-930-50 s SN74LS157NS (TI)  
IC200 8-759-147-05 s uPD42101G-3 (NEC)  
IC201 8-759-208-88 s CXD1131Q (SONY)  
IC202 8-759-981-96 s RC4560M (RAYTHEON)

IC203 8-759-508-58 s MB40778H (FUJITSU)  
IC204 8-759-981-96 s RC4560M (RAYTHEON)  
IC401 8-759-208-76 s CXD1023AQ (SONY)  
IC402 8-741-159-60 s SBX1596-01 (SONY)  
IC403 8-759-205-08 s TC74HC86F (TOSHIBA)

IC404 8-759-239-58 s TC74HC221AF (TOSHIBA)  
IC405 8-749-901-21 s BX1461 (SONY)  
IC406 8-759-208-11 s TC4053BFHB (TOSHIBA)  
IC407 8-759-908-17 s TL082CPS (TI)  
IC408 8-759-907-81 s SN74LS221NS (TI)

Ref.No. Parts No. SP Description

IC409 8-759-204-96 s TC74HC04F (TOSHIBA)  
IC500 8-759-147-05 s uPD42101G-3 (NEC)  
IC501 8-759-147-05 s uPD42101G-3 (NEC)  
IC502 8-759-208-88 s CXD1131Q (SONY)  
IC504 8-759-204-94 s TC74HC00F (TOSHIBA)

IC505 8-759-001-98 s MC10198L (MOTOROLA)  
IC506 8-759-508-58 s MB40778H (FUJITSU)  
IC507 8-759-508-58 s MB40778H (FUJITSU)  
IC508 8-759-907-81 s SN74LS221NS (TI)  
IC509 8-759-981-96 s RC4560M (RAYTHEON)

IC510 8-759-204-98 s TC74HC08F (TOSHIBA)  
IC512 8-759-925-85 s SN74HC32NS (TI)  
IC601 8-759-205-06 s TC74HC74F (TOSHIBA)  
IC603 8-759-930-50 s SN74LS1157NS (TI)  
IC801 8-759-925-84 s SN74HC30NS (TI)

IC802 8-759-925-84 s SN74HC30NS (TI)  
IC803 8-759-925-84 s SN74HC30NS (TI)  
IC804 8-759-205-37 s TC74HC574F (TOSHIBA)  
IC805 8-759-205-37 s TC74HC574F (TOSHIBA)  
IC806 8-759-147-05 s uPD42101G-3 (NEC)

IC807 8-759-926-76 s SN74HC540NS (TI)  
IC810 8-759-012-02 s MC10HL24M (MOTOROLA)  
IC811 8-759-012-02 s MC10HL24M (MOTOROLA)  
IC812 8-759-012-02 s MC10HL24M (MOTOROLA)  
IC813 8-759-904-80 s 74F04PC (FSC)

IC814 8-759-205-37 s TC74HC574F (TOSHIBA)  
IC815 8-759-144-87 s uPD41101G-1 (NEC)  
IC816 8-759-205-37 s TC74HC574F (TOSHIBA)  
IC900 8-759-929-26 s TL431CPS (TI)  
IC901 8-759-982-25 s RC78L09A (RAYTHEON)

L100 1-410-470-11 s MICRO 10  
L101 1-410-470-11 s MICRO 10  
L102 1-410-470-11 s MICRO 10  
L103 1-410-470-11 s MICRO 10  
L200 1-410-478-11 s MICRO 47

L201 1-410-478-11 s MICRO 47  
L203 1-410-478-11 s MICRO 47  
L300 1-410-478-11 s MICRO 47  
L301 1-410-478-11 s MICRO 47  
L400 1-410-470-11 s MICRO 10

L401 1-410-470-11 s MICRO 10  
L500 1-410-478-11 s MICRO 47  
L502 1-410-478-11 s MICRO 47  
L504 1-410-478-11 s MICRO 47  
L505 1-410-478-11 s MICRO 47

L900 1-421-329-00 s CHOKE  
L901 1-421-329-00 s CHOKE  
L902 1-421-329-00 s CHOKE  
L903 1-421-329-00 s CHOKE  
L904 1-421-329-00 s CHOKE

Q201 8-729-100-66 s 2SC1623  
Q202 8-729-102-07 s 2SC2223-F13  
Q203 8-729-102-07 s 2SC2223-F13  
Q204 8-729-100-66 s 2SC1623  
Q205 8-729-109-43 s 2SK94-X3

Q250 8-729-100-66 s 2SC1623  
Q251 8-729-100-76 s 2SA812  
Q400 8-729-100-66 s 2SC1623  
Q401 8-729-100-76 s 2SA812  
Q402 8-729-100-76 s 2SA812

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

Q500 8-729-100-66 s 28C1623  
 Q501 8-729-100-66 s 28C1623  
 Q502 8-729-100-66 s 28C1623  
 Q503 8-729-100-66 s 28C1623  
 Q504 8-729-100-66 s 28C1623  
 Q505 8-729-100-66 s 28C1623  
 Q801 8-729-900-53 s DTC114EK  
 Q802 8-729-900-53 s DTC114EK  
 Q803 8-729-900-53 s DTC114EK  
 Q900 8-729-106-68 s 2SD1615A-GP

R138 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
 R139 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
 R140 1-216-680-11 s METAL CHIP 16k 0.50% 1/10W  
 R141 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R142 1-216-662-11 s METAL CHIP 3k 0.50% 1/10W

R143 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
 R144 1-216-676-11 s METAL CHIP 11k 0.50% 1/10W  
 R145 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
 R146 1-216-672-11 s METAL CHIP 7.5k 0.50% 1/10W  
 R202 1-216-672-11 s METAL CHIP 7.5k 0.50% 1/10W

R203 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
 R204 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
 R205 1-216-661-11 s METAL CHIP 2.7k 0.50% 1/10W  
 R206 1-216-674-11 s METAL CHIP 9.1k 0.50% 1/10W  
 R208 1-216-677-11 s METAL CHIP 12k 0.50% 1/10W

R209 1-216-676-11 s METAL CHIP 11k 0.50% 1/10W  
 R216 1-216-660-11 s METAL CHIP 2.4k 0.50% 1/10W  
 R217 1-216-672-11 s METAL CHIP 7.5k 0.50% 1/10W  
 R220 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
 R223 1-216-678-11 s METAL CHIP 13k 0.50% 1/10W

R229 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
 R254 1-216-638-11 s METAL CHIP 300 0.50% 1/10W  
 R255 1-216-638-11 s METAL CHIP 300 0.50% 1/10W  
 17) R256 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
 18) R256 1-216-623-11 s METAL CHIP 68 0.50% 1/10W

R257 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
 R258 1-216-656-11 s METAL CHIP 1.6k 0.50% 1/10W  
 R260 1-216-655-11 s METAL CHIP 1.5k 0.50% 1/10W  
 R261 1-216-643-11 s METAL CHIP 470 0.50% 1/10W  
 R262 1-216-635-11 s METAL CHIP 220 0.50% 1/10W

R266 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
 R268 1-216-658-11 s METAL CHIP 2k 0.50% 1/10W  
 R269 1-216-642-11 s METAL CHIP 430 0.50% 1/10W  
 R270 1-216-648-11 s METAL CHIP 750 0.50% 1/10W  
 R273 1-217-666-31 s SHORT 0.01 1/6W

R418 1-216-677-11 s METAL CHIP 12k 0.50% 1/10W  
 R424 1-216-683-11 s METAL CHIP 22k 0.50% 1/10W  
 R425 1-216-673-11 s METAL CHIP 8.2k 0.50% 1/10W  
 R426 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R427 1-216-655-11 s METAL CHIP 1.5k 0.50% 1/10W

R428 1-216-655-11 s METAL CHIP 1.5k 0.50% 1/10W  
 R430 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
 R432 1-216-666-11 s METAL CHIP 4.3k 0.50% 1/10W  
 R433 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
 R510 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W

R511 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
 R512 1-216-672-11 s METAL CHIP 7.5k 0.50% 1/10W  
 R513 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
 R514 1-216-661-11 s METAL CHIP 2.7k 0.50% 1/10W  
 R515 1-216-674-11 s METAL CHIP 9.1k 0.50% 1/10W

Ref.No. Parts No. SP Description

R520 1-216-646-11 s METAL CHIP 620 0.50% 1/10W  
 R521 1-216-653-11 s METAL CHIP 1.2k 0.50% 1/10W  
 R524 1-216-624-11 s METAL CHIP 75 0.50% 1/10W  
 R529 1-216-660-11 s METAL CHIP 2.4k 0.50% 1/10W  
 R530 1-216-674-11 s METAL CHIP 9.1k 0.50% 1/10W

R535 1-216-646-11 s METAL CHIP 620 0.50% 1/10W  
 R536 1-216-653-11 s METAL CHIP 1.2k 0.50% 1/10W  
 R539 1-216-624-11 s METAL CHIP 75 0.50% 1/10W  
 R540 1-216-677-11 s METAL CHIP 12k 0.50% 1/10W  
 R541 1-216-660-11 s METAL CHIP 2.4k 0.50% 1/10W

R542 1-216-678-11 s METAL CHIP 13k 0.50% 1/10W  
 R546 1-216-635-11 s METAL CHIP 220 0.50% 1/10W  
 R549 1-216-682-11 s METAL CHIP 20k 0.50% 1/10W  
 R571 1-216-635-11 s METAL CHIP 220 0.50% 1/10W  
 R572 1-216-635-11 s METAL CHIP 220 0.50% 1/10W

R573 1-216-677-11 s METAL CHIP 12k 0.50% 1/10W  
 R605 1-216-679-11 s METAL CHIP 15k 0.50% 1/10W  
 R901 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
 R902 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W

RV200 1-237-501-21 s VAR, CERMET 2k

RV250 1-237-501-21 s VAR, CERMET 2k

S500 1-554-149-00 s DIP

TC-40AP BOARD

A-6717-488-A o MOUNTED CIRCUIT BOARD, TC-40AP

C59 1-124-236-00 s ELECT 47 20% 16V  
 C217 1-124-462-00 s ELECT 10 20% 16V  
 C218 1-124-236-00 s ELECT 47 20% 16V  
 C219 1-124-236-00 s ELECT 47 20% 16V  
 C220 1-124-462-00 s ELECT 10 20% 16V

C222 1-126-103-11 s ELECT 470 20% 16V  
 C223 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C224 1-126-103-11 s ELECT 470 20% 16V  
 C225 1-163-037-11 s CERAMIC CHIP 0.022 10% 25V  
 C229 1-124-236-00 s ELECT 47 20% 16V

C230 1-124-236-00 s ELECT 47 20% 16V  
 C231 1-124-462-00 s ELECT 10 20% 16V  
 C232 1-124-462-00 s ELECT 10 20% 16V  
 C233 1-124-236-00 s ELECT 47 20% 16V  
 C234 1-124-236-00 s ELECT 47 20% 16V

C236 1-124-236-00 s ELECT 47 20% 16V  
 C238 1-124-462-00 s ELECT 10 20% 16V  
 C239 1-124-236-00 s ELECT 47 20% 16V  
 C240 1-124-236-00 s ELECT 47 20% 16V  
 C241 1-124-236-00 s ELECT 47 20% 16V

C242 1-124-236-00 s ELECT 47 20% 16V  
 C246 1-124-499-11 s ELECT 1 20% 50V  
 C253 1-124-236-00 s ELECT 47 20% 16V  
 C254 1-124-236-00 s ELECT 47 20% 16V  
 C272 1-126-103-11 s ELECT 470 20% 16V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# C-40AP, TR-18, VO-18AP

Ref.No.	Parts No.	SP	Description			
C273	1-126-103-11	s	ELECT	470	20%	16V
C276	1-124-899-00	s	ELECT	22	20%	25V
C277	1-124-899-00	s	ELECT	22	20%	25V
C279	1-124-236-00	s	ELECT	47	20%	16V
C280	1-124-499-11	s	ELECT	1	20%	50V
8) C403	1-124-236-00	s	ELECT	47	20%	16V
3) CN205	1-506-748-31	s	DIN 96P			
4) CN205	1-506-748-11	s	DIN 96P			
D206	8-719-100-03	s	1S2835			
D207	8-719-101-23	s	1S8123			
IC204	8-759-700-07	s	NJM2903M (JRC)			
IC205	8-759-208-09	s	TC4052BFHB (TOSHIBA)			
8) IC206	8-759-908-17	s	TL082CPS (TI)			
9) IC206	8-759-700-78	s	NJM082M (JRC)			
IC208	8-759-700-43	s	NJM4558M (JRC)			
IC209	8-759-208-11	s	TC4053BFHB (TOSHIBA)			
IC210	8-759-700-43	s	NJM4558M (JRC)			
IC211	8-759-705-62	s	NJM4562D-D (JRC)			
IC212	8-759-200-90	s	TC4538BF (TOSHIBA)			
IC213	8-759-200-77	s	TC4028BF (TOSHIBA)			
IC214	8-759-204-06	s	TC4075BF (TOSHIBA)			
IC215	8-759-745-56	s	NJM4556D (JRC)			
L201	1-459-155-00	s	45 (WITH CORE)			
L202	1-459-155-00	s	45 (WITH CORE)			
Q209	8-729-202-38	s	2SC3326N			
Q210	8-729-202-38	s	2SC3326N			
Q211	8-729-271-22	s	2SC2712-G			
Q212	8-729-271-22	s	2SC2712-G			
Q213	8-729-220-93	s	2SK209-G			
Q214	8-729-109-11	s	DTA144EK			
Q215	8-729-109-44	s	DTA144EK			
8) Q216	8-729-901-01	s	DTC144EK			
R238	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
R337	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
R338	1-216-647-11	s	METAL CHIP 680	0.50%	1/10W	
R341	1-216-624-11	s	METAL CHIP 75	0.50%	1/10W	
R342	1-216-676-11	s	METAL CHIP 11k	0.50%	1/10W	
R343	1-216-624-11	s	METAL CHIP 75	0.50%	1/10W	
R344	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
R345	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W	
R346	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W	
R347	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W	
R348	1-216-663-11	s	METAL CHIP 3.3k	0.50%	1/10W	
R349	1-216-675-11	s	METAL CHIP 10k	0.50%	1/10W	
RV201	1-237-516-21	s	VAR, CERMET	2k		
RV202	1-237-516-21	s	VAR, CERMET	2k		

Ref.No. Parts No. SP Description

## TR-18 BOARD

1-611-279-13 o PRINTED CIRCUIT BOARD, TR-18

8-749-020-80 s DM-208

## VO-18AP BOARD

This board included the DUS-270 board.

17) A-6711-953-A o MOUNTED CIRCUIT BOARD, VO-18AP  
18) A-6711-953-B o MOUNTED CIRCUIT BOARD, VO-18AP

C3	1-124-584-00	s	ELECT	100	20%	10V
C5	1-124-584-00	s	ELECT	100	20%	10V
C15	1-124-224-00	s	ELECT	47	20%	6.3V
C18	1-163-111-00	s	CERAMIC CHIP	56pF	5%	50V
C27	1-124-236-00	s	ELECT	47	20%	10V
C29	1-124-236-00	s	ELECT	47	20%	10V
C30	1-124-222-00	s	ELECT	22	20%	6.3V
C32	1-123-611-00	s	ELECT	1	20%	50V
C45	1-124-584-00	s	ELECT	100	20%	10V
C48	1-124-584-00	s	ELECT	100	20%	10V
C55	1-124-584-00	s	ELECT	100	20%	10V
C56	1-124-584-00	s	ELECT	100	20%	10V
C70	1-124-584-00	s	ELECT	100	20%	10V
C76	1-124-225-00	s	ELECT	100	20%	6.3V
C78	1-124-224-00	s	ELECT	47	20%	6.3V
C87	1-124-224-00	s	ELECT	47	20%	6.3V
C501	1-163-105-00	s	CERAMIC CHIP	33pF	5%	50V
G608	1-124-899-00	s	ELECT	22	20%	25V
C611	1-124-499-11	s	ELECT	1	20%	50V
C613	1-124-499-11	s	ELECT	1	20%	50V
C616	1-124-225-00	s	ELECT	100	20%	6.3V
C628	1-124-899-00	s	ELECT	22	20%	25V
C631	1-124-499-11	s	ELECT	1	20%	50V
C633	1-124-499-11	s	ELECT	1	20%	50V
C646	1-124-899-00	s	ELECT	22	20%	25V
C648	1-124-899-00	s	ELECT	22	20%	25V
C651	1-136-157-00	s	MYLAR	0.022	10%	50V
C653	1-130-519-00	s	MYLAR	0.018	10%	50V
C655	1-124-222-00	s	ELECT	22	20%	6.3V
C702	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C703	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C704	1-124-462-00	s	ELECT	10	20%	16V
C705	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C706	1-124-462-00	s	ELECT	10	20%	16V
C707	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C710	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C713	1-163-037-00	s	CERAMIC CHIP	0.022	10%	25V
C714	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C715	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C716	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C718	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C719	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C720	1-163-037-11	s	CERAMIC CHIP	0.022	10%	25V
C721	1-124-462-00	s	ELECT	10	20%	16V
C723	1-124-234-00	s	ELECT	22	20%	10V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No.	Parts No.	SP	Description	Ref.No.	Parts No.	SP	Description
C724	1-124-229-00	s	ELECT 33 20% 10V	IC106	8-759-708-05	s	NJM78L05A (JRC)
C725	1-124-224-00	s	ELECT 47 20% 6.3V	IC107	8-759-700-65	s	NJM79L05A (JRC)
C726	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC108	8-759-941-79	s	S-80230AG (SEIKO I AND E)
C727	1-163-037-11	s	CERAMIC CHIP 0.022 10% 25V	IC109	8-759-708-08	s	NJM78L08A (JRC)
C729	1-124-225-11	s	ELECT 100 20% 6.3V	IC110	8-759-700-65	s	NJM79L05A (JRC)
3) CNI03	1-506-748-31	s	DIN 96P	IC111	8-759-937-61	s	S-81230AG (SEIKO I AND E)
4) CNI03	1-506-748-11	s	DIN 96P	IC112	8-759-708-05	s	NJM78L05A (JRC)
CV1	1-141-260-11	s	TRIMMER 50pF	IC113	8-759-700-65	s	NJM79L05A (JRC)
D1	8-719-109-57	s	RD2.4ES-B2	IC601	8-752-011-10	s	CX20111 (SONY)
D601	8-719-101-23	s	1SS123	IC602	8-752-011-10	s	CX20111 (SONY)
D602	8-719-101-23	s	1SS123	IC603	8-759-207-74	s	TC4030BFHB (TOSHIBA)
D603	8-719-921-11	s	HZ2ALL	IC604	8-759-700-43	s	NJM4558M (JRC)
D604	8-719-921-11	s	HZ2ALL	IC605	8-759-205-78	s	TC504013BF (TOSHIBA)
D605	8-719-104-23	s	1SS123	IC606	8-759-200-90	s	TC4538BF (TOSHIBA)
DL1	1-415-565-11	s	370ns	IC700	8-759-941-27	s	MB4002PF (FUJITSU)
DL2	1-415-543-11	s	300ns	IC701	8-759-929-80	s	SN74LS08NS (TI)
DL700	1-415-538-11	s	100ns	IC702	8-749-938-10	s	BX381 (SONY)
FB601	1-535-178-00	s	FERRITE BEAD	IC703	8-759-908-17	s	TL082CPS (TI)
FB602	1-535-178-00	s	FERRITE BEAD	IC704	8-759-100-93	s	uPC393G2 (JRC)
17) FL1	1-236-005-11	s	LOW-PASS 5.5MHz	IC705	8-759-008-52	s	MC74HC123AF (MOTOROLA)
18) FL1	1-236-393-11	s	LOW-PASS	IC706	8-759-947-82	s	TL610CPS (TI)
FL601	1-236-014-11	s	BANDPASS 310kHz	IC707	8-752-015-81	s	CX20158 (SONY)
FL602	1-236-015-11	s	BANDPASS 540kHz	IC708	8-759-929-78	s	SN74LS04NS (TI)
FL603	1-236-590-11	s	LOW-PASS 1.0MHz	L1	1-421-329-00	s	CHOKE
FL604	1-236-590-11	s	LOW-PASS 1.0MHz	L2	1-421-329-00	s	CHOKE
FL700	1-236-091-11	s	LOW-PASS 4.00MHz	L3	1-421-329-00	s	CHOKE
FL701	1-236-091-11	s	LOW-PASS 4.00MHz	L4	1-421-329-00	s	CHOKE
IC1	8-759-014-29	s	MC34184M (MOTOROLA)	L5	1-421-329-00	s	CHOKE
IC3	8-759-947-82	s	TL610CPS (TI)	L7	1-410-478-11	s	MICRO 47
IC4	8-752-015-81	s	CX20158 (SONY)	L8	1-410-478-11	s	MICRO 47
IC5	8-752-015-81	s	CX20158 (SONY)	L9	1-410-478-11	s	MICRO 47
IC6	8-752-015-81	s	CX20158 (SONY)	L12	1-410-478-11	s	MICRO 47
IC7	8-759-204-94	s	TC74HC00F (TOSHIBA)	L13	1-410-478-11	s	MICRO 47
IC8	8-759-941-17	s	SN74LS06NS (TI)	L14	1-410-478-11	s	MICRO 47
IC9	8-759-204-98	s	TC74HC08F (TOSHIBA)	L17	1-410-482-31	s	MICRO 100
IC10	8-759-204-96	s	TC74HC04F (TOSHIBA)	L19	1-410-467-21	s	MICRO 5.6
IC11	8-752-015-81	s	CX20158 (SONY)	L20	1-410-471-11	s	MICRO 12
IC12	8-752-015-81	s	CX20158 (SONY)	L701	1-410-478-11	s	MICRO 47
IC13	8-752-015-81	s	CX20158 (SONY)	L702	1-410-478-11	s	MICRO 47
IC15	8-759-908-17	s	TL082CPS (TI)	L703	1-410-478-11	s	MICRO 47
IC17	8-759-908-17	s	TL082CPS (TI)	L704	1-410-478-11	s	MICRO 47
IC100	8-759-708-05	s	NJM78L05A (JRC)	LV1	1-407-575-00	s	VAR 100
IC101	8-759-708-08	s	NJM78L08A (JRC)	LV2	1-407-575-00	s	VAR 100
IC102	8-759-700-65	s	NJM79L05A (JRC)	Q1	8-729-100-66	s	2SC1623
IC103	8-759-700-67	s	NJM79L08A (JRC)	Q2	8-729-100-66	s	2SC1623
IC104	8-759-708-05	s	NJM78L05A (JRC)	Q3	8-729-201-27	s	2SC2715-Y
IC105	8-759-700-65	s	NJM79L05A (JRC)	Q4	8-729-201-27	s	2SC2715-Y
				Q5	8-729-201-27	s	2SC2715-Y
				Q6	8-729-102-07	s	2SC2223-F13
				Q7	8-729-201-27	s	2SC2715-Y
				Q8	8-729-201-27	s	2SC2715-Y
				Q9	8-729-201-27	s	2SC2715-Y
				Q10	8-729-201-27	s	2SC2715-Y
				Q11	8-729-907-26	s	IMX1
				Q12	8-729-201-27	s	2SC2715-Y
				Q13	8-729-122-63	s	2SA1226
				Q14	8-729-201-27	s	2SC2715-Y
				Q15	8-729-122-63	s	2SA1226

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".



Ref.No. Parts No. SP Description

Q16 8-729-201-27 s 2SC2715-Y  
Q17 8-729-201-27 s 2SC2715-Y  
Q18 8-729-201-27 s 2SC2715-Y  
Q19 8-729-100-76 s 2SA812  
Q20 8-729-201-27 s 2SC2715-Y

Q25 8-729-201-27 s 2SC2715-Y  
Q26 8-729-312-22 s 2SA1122  
Q27 8-729-100-76 s 2SA812  
Q28 8-729-100-66 s 2SC1623  
Q29 8-729-100-66 s 2SC1623

Q30 8-729-904-42 s FMY3  
Q31 8-729-122-63 s 2SA1226  
Q32 8-729-201-27 s 2SC2715-Y  
Q401 8-729-100-66 s 2SC1623  
Q501 8-729-100-76 s 2SA812

Q502 8-729-100-76 s 2SA812  
Q503 8-729-902-27 s FMS1  
Q504 8-729-903-11 s FMW1  
Q601 8-729-271-22 s 2SC2712-G  
Q602 8-729-271-22 s 2SC2712-G

Q603 8-729-271-22 s 2SC2712-G  
Q604 8-729-271-22 s 2SC2712-G  
Q605 8-729-271-22 s 2SC2712-G  
Q700 8-729-201-27 s 2SC2715-Y  
Q701 8-729-201-27 s 2SC2715-Y

Q702 8-729-100-66 s 2SC1623  
Q703 8-729-100-66 s 2SC1623

R1 1-216-638-11 s METAL CHIP 300 0.50% 1/10W  
R2 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R4 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R5 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
R7 1-216-647-11 s METAL CHIP 680 0.50% 1/10W

R8 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
R11 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
R14 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R15 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R16 1-216-643-11 s METAL CHIP 470 0.50% 1/10W

6) R17 1-216-649-11 s METAL CHIP 820 0.50% 1/10W  
7) R17 1-216-650-11 s METAL CHIP 910 0.50% 1/10W  
R18 1-216-655-11 s METAL CHIP 1.5k 0.50% 1/10W  
R19 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R20 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W

R21 1-216-627-11 s METAL CHIP 100 0.50% 1/10W  
R26 1-216-643-11 s METAL CHIP 470 0.50% 1/10W  
R27 1-216-631-11 s METAL CHIP 150 0.50% 1/10W  
R30 1-216-677-11 s METAL CHIP 12k 0.50% 1/10W  
R31 1-216-645-11 s METAL CHIP 560 0.50% 1/10W

R32 1-216-627-11 s METAL CHIP 47 0.50% 1/10W  
R33 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R34 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R39 1-216-653-11 s METAL CHIP 1.2k 0.50% 1/10W  
R40 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W

R41 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
R42 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
R43 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R44 1-216-636-11 s METAL CHIP 240 0.50% 1/10W  
R48 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W

Ref.No. Parts No. SP Description

R50 1-216-611-11 s METAL CHIP 22 0.50% 1/10W  
R51 1-216-611-11 s METAL CHIP 22 0.50% 1/10W  
R58 1-216-644-11 s METAL CHIP 510 0.50% 1/10W  
R72 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
R73 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W

R75 1-216-644-11 s METAL CHIP 510 0.50% 1/10W  
R79 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R81 1-216-641-11 s METAL CHIP 390 0.50% 1/10W  
R85 1-216-639-11 s METAL CHIP 330 0.50% 1/10W  
R93 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W

R98 1-216-637-11 s METAL CHIP 270k 0.50% 1/10W  
R101 1-216-657-11 s METAL CHIP 1.8k 0.50% 1/10W  
R103 1-216-640-11 s METAL CHIP 360 0.50% 1/10W  
R104 1-216-611-11 s METAL CHIP 22 0.50% 1/10W  
R105 1-216-624-11 s METAL CHIP 75 0.50% 1/10W

R106 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
R109 1-216-643-11 s METAL CHIP 470 0.50% 1/10W  
R111 1-216-673-11 s METAL CHIP 8.2k 0.50% 1/10W  
R114 1-216-649-11 s METAL CHIP 820 0.50% 1/10W  
R115 1-216-645-11 s METAL CHIP 560 0.50% 1/10W

R116 1-216-657-11 s METAL CHIP 1.8k 0.50% 1/10W  
R117 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R119 1-216-627-11 s METAL CHIP 100 0.50% 1/10W  
R120 1-216-611-11 s METAL CHIP 22 0.50% 1/10W  
R121 1-216-619-11 s METAL CHIP 47 0.50% 1/10W

R122 1-216-611-11 s METAL CHIP 22 0.50% 1/10W  
R124 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
R125 1-216-623-11 s METAL CHIP 68 0.50% 1/10W  
R126 1-216-624-11 s METAL CHIP 75 0.50% 1/10W  
R128 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W

R130 1-216-647-11 s METAL CHIP 680 0.50% 1/10W  
R131 1-216-638-11 s METAL CHIP 300 0.50% 1/10W  
R140 1-216-627-11 s METAL CHIP 100 0.50% 1/10W  
R141 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W  
R143 1-216-659-11 s METAL CHIP 2.2k 0.50% 1/10W

R153 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
R154 1-216-619-11 s METAL CHIP 47 0.50% 1/10W  
R201 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
R202 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
R203 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W

R204 1-216-651-11 s METAL CHIP 1k 0.50% 1/10W  
R505 1-216-627-11 s METAL CHIP 100 0.50% 1/10W  
R506 1-216-627-11 s METAL CHIP 100 0.50% 1/10W  
R508 1-216-624-11 s METAL CHIP 75 0.50% 1/10W  
R511 1-216-639-11 s METAL CHIP 330 0.50% 1/10W

R612 1-216-032-00 s CHIP 200 5% 1/10W  
R642 1-216-032-00 s CHIP 200 5% 1/10W  
R666 1-216-699-11 s METAL CHIP 100k 0.50% 1/10W  
R676 1-216-672-11 s METAL CHIP 7.5k 0.50% 1/10W  
R702 1-216-630-11 s METAL CHIP 130 0.50% 1/10W

R703 1-216-644-11 s METAL CHIP 510 0.50% 1/10W  
R706 1-216-644-11 s METAL CHIP 510 0.50% 1/10W  
R710 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
R711 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
R712 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W

R713 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
R714 1-216-675-11 s METAL CHIP 10k 0.50% 1/10W  
R715 1-216-667-11 s METAL CHIP 4.7k 0.50% 1/10W  
R718 1-216-664-11 s METAL CHIP 3.6k 0.50% 1/10W  
R719 1-216-663-11 s METAL CHIP 3.3k 0.50% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# VO-18AP, VR-42/62, SWITCHING REGULATOR

Ref.No.	Parts No.	SP	Description
R720	1-216-664-11	s	METAL CHIP 3.6k 0.50% 1/10W
R724	1-216-679-11	s	METAL CHIP 15k 0.50% 1/10W
R727	1-216-659-11	s	METAL CHIP 2.2k 0.50% 1/10W
R728	1-216-663-11	s	METAL CHIP 3.3k 0.50% 1/10W
R730	1-216-644-11	s	METAL CHIP 510 0.50% 1/10W
R733	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R734	1-216-651-11	s	METAL CHIP 1k 0.50% 1/10W
R735	1-216-671-11	s	METAL CHIP 6.8k 0.50% 1/10W
R736	1-216-631-11	s	METAL CHIP 150 0.50% 1/10W
R741	1-216-658-11	s	METAL CHIP 2k 0.50% 1/10W
R743	1-216-619-11	s	METAL CHIP 47 0.50% 1/10W
R746	1-216-603-11	s	METAL CHIP 10 0.50% 1/10W
R749	1-216-639-11	s	METAL CHIP 330 0.50% 1/10W

RV1	1-237-515-21	s	VAR, CERMET 1k
RV2	1-237-503-21	s	VAR, CERMET 10k
RV4	1-237-518-21	s	VAR, CERMET 10k
RV5	1-237-514-21	s	VAR, CERMET 500
RV7	1-237-515-21	s	VAR, CERMET 1k
RV9	1-237-514-21	s	VAR, CERMET 500
RV10	1-237-515-21	s	VAR, CERMET 1k
RV11	1-237-515-21	s	VAR, CERMET 1k
RV13	1-237-515-21	s	VAR, CERMET 1k
RV14	1-237-501-21	s	VAR, CERMET 2k
RV15	1-237-517-21	s	VAR, CERMET 5k
RV16	1-237-512-21	s	VAR, CERMET 100
RV17	1-237-512-21	s	VAR, CERMET 100
RV19	1-237-512-21	s	VAR, CERMET 100
RV20	1-230-838-11	s	VAR, METAL FILM 200
RV21	1-230-838-11	s	VAR, METAL FILM 200
RV601	1-237-517-21	s	VAR, CERMET 1k
RV700	1-237-514-21	s	VAR, CERMET 500
RV701	1-237-516-21	s	VAR, CERMET 2k
RV702	1-237-514-21	s	VAR, CERMET 500
RV703	1-237-515-21	s	VAR, CERMET 1k
RV704	1-237-516-21	s	VAR, CERMET 2k

S1	1-570-857-11	s	DIP
S2	1-571-259-11	s	DIP
S3	1-571-259-11	s	DIP
S4	1-570-857-11	s	DIP
S5	1-570-857-11	s	DIP

## VR-42 BOARD

1-622-592-12 o PRINTED CIRCUIT BOARD, VR-42

RV11	1-237-781-11	s	VAR, CARBON 10k
RV12	1-237-781-11	s	VAR, CARBON 10k

Ref.No. Parts No. SP Description

## VR-62 BOARD

1-622-589-13 o PRINTED CIRCUIT BOARD, VR-62

RV541 1-230-501-11 s VAR, CARBON 20k/20k

## SWITCHING REGULATOR UR-21B

A 1-413-307-24 s SWITCHING REGULATOR UR-21B

M201 1-541-524-11 s DC FAN

## UR-21B C1 BOARD

C51	1-161-925-91	s	CERAMIC 100pF 10% 500V
C52	1-161-925-91	s	CERAMIC 100pF 10% 500V
C53	1-131-458-51	s	TANTAL 1.5 20% 16V
C55	1-130-018-51	s	FILM 0.001 5% 50V
C56	1-130-528-51	s	TEREPHTHALATE 0.1 10% 50V
C57	1-130-506-91	s	TEREPHTHALATE 0.0015 10% 50V
C59	1-130-528-51	s	TEREPHTHALATE 0.1 10% 50V
C61	1-124-924-91	s	ELECT 1 20% 100V

CN52 1-564-352-11 o PIN 7P  
CN53 1-564-352-11 o PIN 7P

D51	1-807-913-21	s	11EQS04
D52	1-807-913-21	s	11EQS04
D53	1-807-913-21	s	11EQS04
D54	1-807-913-21	s	11EQS04
D55	8-719-911-19	s	1SS119
D56	8-719-911-19	s	1SS119
D57	8-719-109-94	s	RD6.2ES-B3
D58	8-719-107-87	s	03P2M
D59	8-719-911-19	s	1SS119
D60	8-719-911-19	s	1SS119
D61	8-719-911-19	s	1SS119
D62	8-719-911-19	s	1SS119
D63	8-719-109-75	s	RD4.3ES-B2

IC51 8-759-937-59 s MB3759 (FUJITSU)  
IC52 8-759-103-93 s uPC393C (NEC)

L51 1-410-466-21 s MICRO 4.7

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# SWITCHING REGULATOR

Ref.No. Parts No. SP Description

Q51 8-729-208-04 s 2SK422  
Q52 8-729-208-04 s 2SK422  
Q53 8-729-117-54 s 2SA1175  
Q54 8-729-178-54 s 2SC2785\*(28)  
Q55 8-729-117-54 s 2SA1175

R56 1-247-903-00 s CARBON 1M 5% 1/4W

RV51 1-228-990-11 s VAR, METAL GLAZE 1k

## UR-21B C2 BOARD

C51 1-161-925-91 s CERAMIC 100pF 10% 500V  
C52 1-161-925-91 s CERAMIC 100pF 10% 500V  
C56 1-130-528-51 s TEREPHTHALATE 0.1 10% 50V  
C57 1-130-506-91 s TEREPHTHALATE 0.0015 10% 50V  
C59 1-130-528-51 s TEREPHTHALATE 0.1 10% 50V

CN52 1-564-352-11 o PIN 7P  
CN53 1-564-352-11 o PIN 7P

D51 1-807-913-21 s 11EQS04  
D52 1-807-913-21 s 11EQS04  
D53 1-807-913-21 s 11EQS04  
D54 1-807-913-21 s 11EQS04  
D55 1-719-911-19 s 1SS119  
  
D56 1-719-911-19 s 1SS119  
D57 8-719-110-41 s RD15ES-B2  
D58 8-719-107-87 s 03P2M  
D59 8-719-911-19 s 1SS119  
D60 8-719-911-19 s 1SS119

D61 8-719-911-19 s 1SS119  
D62 8-719-911-19 s 1SS119  
D63 8-719-110-22 s RD11ES-B2

IC51 8-759-937-59 s MB3759 (FUJITSU)  
IC52 8-759-103-93 s uPC393C (NEC)

L51 1-410-466-21 s MICRO 4.7

Q51 8-729-208-04 s 2SK422  
Q52 8-729-208-04 s 2SK422  
Q53 8-729-117-54 s 2SA1175  
Q54 8-729-178-54 s 2SC2785\*(28)  
Q55 8-729-117-54 s 2SA1175

R56 1-247-903-00 s CARBON 1M 5% 1/4W

RV51 1-228-990-11 s VAR, METAL GLAZE 1k

Ref.No. Parts No. SP Description

## UR-21B M1 BOARD

C101 1-136-564-11 s CERAMIC 1000pF 10% 500V  
C102 1-136-564-11 s CERAMIC 1000pF 10% 500V  
C104 1-125-477-11 s ELECT 470 20% 400V  
C105 1-125-477-11 s ELECT 470 20% 400V  
C106 1-161-915-11 s CERAMIC 1000pF 10% 500V

C107 1-161-915-11 s CERAMIC 1000pF 10% 500V  
C203 1-161-915-11 s CERAMIC 1000pF 10% 500V  
C204 1-161-915-11 s CERAMIC 1000pF 10% 500V  
C205 1-124-636-51 s ELECT 3300 20% 25V  
C206 1-130-516-91 s TEREPHTHALATE 0.01 10% 50V

C209 1-124-891-51 s ELECT 10000 20% 6.3V  
C211 1-130-772-21 s FILM 0.22 10% 63V  
C212 1-124-621-51 s ELECT 3300 20% 6.3V  
C213 1-130-772-21 s FILM 0.22 10% 63V  
C214 1-124-585-51 s ELECT 3300 20% 10V

C221 1-130-518-91 s TEREPHTHALATE 0.015 10% 50V  
C222 1-130-524-51 s TEREPHTHALATE 0.047 10% 50V  
C223 1-130-524-51 s TEREPHTHALATE 0.047 10% 50V  
C227 1-124-120-51 s ELECT 220 20% 25V  
C228 1-130-772-21 s FILM 0.22 10% 63V

C229 1-130-772-21 s FILM 0.22 10% 63V  
C230 1-130-772-21 s FILM 0.22 10% 63V

## Δ CN101 1-564-242-11 o 5P

CN201 1-564-932-11 o 9P  
CN202 1-560-893-11 o 5P  
CN203 1-560-299-11 o 2P  
CN204 1-560-890-21 o 2P

D101 8-719-109-75 s RD4.3ES-B2  
D102 8-719-912-20 s 1SS120  
D103 1-807-913-21 s 11EQS04  
D104 1-807-913-21 s 11EQS04  
D201 1-807-774-11 s AU02A

D202 8-719-109-85 s RD5.1ES-B2  
D203 8-719-109-85 s RD5.1ES-B2  
D204 8-719-911-19 s 1SS119  
D205 8-719-200-02 s 10E2  
D206 8-719-200-02 s 10E2

D207 1-807-911-11 s F10P40F  
D208 8-719-200-02 s 10E2  
D209 8-719-200-02 s 10E2  
D210 8-719-302-60 s FML-32S  
D211 1-807-963-21 s 31DF2

D212 1-807-963-21 s 31DF2  
D213 8-719-110-13 s RD9.1ES-B2  
D214 1-807-911-21 s F10P40FR  
D215 8-719-912-20 s 1SS120  
D216 8-719-912-20 s 1SS120

D220 8-719-200-02 s 10E2  
D222 8-719-200-02 s 10E2

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# SWITCHING REGULATOR

Ref.No. Parts No. SP Description

FB201 1-543-060-11 s FERRITE BEAD  
 FB202 1-543-060-11 s FERRITE BEAD  
 FB203 1-543-060-11 s FERRITE BEAD  
 FB204 1-543-060-11 s FERRITE BEAD  
 FB205 1-543-060-11 s FERRITE BEAD  
 FB206 1-543-060-11 s FERRITE BEAD

IC101 1-807-814-11 s B5272 (JRM)  
 IC201 8-759-135-80 s uPC358C (NEC)  
 IC202 8-759-077-33 s TL431CLP (TI)  
 IC203 8-759-077-33 s TL431CLP (TI)

L201 A-4935-038-A s CHOKE  
 L202 1-421-459-21 s CHOKE  
 L203 A-4935-037-A s CHOKE  
 L204 1-421-459-21 s CHOKE  
 L205 1-421-734-11 s CHOKE  
 L206 1-421-459-21 s CHOKE  
 L207 1-421-459-21 s CHOKE

△ PS101 1-532-605-11 s IC LINK  
 PS102 1-532-605-11 s IC LINK  
 PS201 1-532-605-11 s IC LINK

Q101 1-807-858-11 s IREP451  
 Q102 1-807-858-11 s IREP451  
 Q103 8-729-113-32 s 2SB733  
 Q104 8-729-113-32 s 2SB733  
 Q201 8-729-103-43 s 2SB734\*(28)

Q202 8-729-178-54 s 2SC2785\*(28)  
 Q203 8-729-178-54 s 2SC2785\*(28)  
 Q204 8-729-178-54 s 2SC2785\*(28)  
 Q205 1-807-914-11 s 2SA1443-L  
 Q206 8-729-177-43 s 2SD774

Q207 1-807-914-11 s 2SA1443-L  
 Q208 8-729-117-54 s 2SA1175  
 Q209 1-807-915-11 s 2SC3692-L  
 Q210 8-729-178-54 s 2SC2785\*(28)

R102 1-247-713-11 s CARBON 1k 5% 1/4W

△ R103 1-247-692-11 s CARBON 22 5% 1/4W  
 R104 1-247-692-11 s CARBON 22 5% 1/4W  
 R107 1-205-622-00 s CEMENT 33 5% 5W

R203 1-247-698-11 s CARBON 68 5% 1/4W

△ R210 1-205-623-00 s CEMENT 47 5% 5W  
 R212 1-215-888-00 s METAL OXIDE 2220 5% 2W

R215 1-247-887-00 s CARBON 220k 5% 1/4W

△ R220 1-215-866-11 s METAL OXIDE 330 5% 1W

R221 1-247-696-11 s CARBON 47 5% 1/4W

Ref.No. Parts No. SP Description

△ R225 1-215-865-11 s METAL OXIDE 220 5% 1W

R229 1-214-669-71 s METAL 3.3 1% 1/4W

△ R230 1-215-889-00 s METAL OXIDE 330 5% 2W  
 R231 1-215-889-00 s METAL OXIDE 330 5% 2W

RV201 1-230-667-11 s VAR, CERMET 500

ST201 1-571-055-91 s THERMAL SENSOR

△ T101 1-448-393-11 s CONVERTER  
 T102 A-4935-035-A s CONVERTER  
 T103 1-421-819-11 s CURRENT  
 T104 1-437-188-11 s DRIVE  
 T105 1-437-188-11 s DRIVE  
 T106 1-447-938-11 s CONVERTER

## UR-21B MZ BOARD

△ C151 1-136-185-12 s FILM 0.22 20% 250V  
 C152 1-136-185-12 s FILM 0.22 20% 250V  
 C154 1-136-185-12 s FILM 0.22 20% 250V  
 C155 1-161-742-12 s CERAMIC 2200pF 20% 400V  
 C156 1-161-742-12 s CERAMIC 2200pF 20% 400V

△ C157 1-161-742-12 s CERAMIC 2200pF 20% 400V  
 C158 1-161-742-12 s CERAMIC 2200pF 20% 400V  
 C159 1-161-742-12 s CERAMIC 2200pF 20% 400V

C161 1-136-564-11 s FILM 1.8 10% 250V  
 C162 1-136-564-11 s FILM 1.8 10% 250V

C163 1-161-915-11 s CERAMIC 1000pF 10% 500V  
 C164 1-161-915-11 s CERAMIC 1000pF 10% 500V

△ C165 1-161-742-12 s CERAMIC 2200pF 20% 400V  
 C166 1-161-742-12 s CERAMIC 2200pF 20% 400V  
 C167 1-161-742-12 s CERAMIC 2200pF 20% 400V

C251 1-161-915-11 s CERAMIC 1000pF 10% 500V  
 C252 1-161-915-11 s CERAMIC 1000pF 10% 500V  
 C253 1-124-556-51 s ELECT 2200 20% 16V  
 C254 1-124-555-51 s ELECT 1000 20% 16V  
 C255 1-124-923-91 s ELECT 0.47 20% 100V

C256 1-124-898-51 s ELECT 4700 20% 16V  
 C257 1-124-898-51 s ELECT 4700 20% 16V  
 C258 1-124-898-51 s ELECT 4700 20% 16V  
 C260 1-124-563-51 s ELECT 2200 20% 25V  
 C263 1-130-518-91 s TEREPHTHALATE 0.015 10% 50V

C264 1-130-524-91 s TEREPHTHALATE 0.047 10% 50V  
 C265 1-130-524-91 s TEREPHTHALATE 0.047 10% 50V  
 C268 1-130-772-21 s FILM 0.22 10% 63V  
 C269 1-130-772-21 s FILM 0.22 10% 63V  
 C270 1-130-772-21 s FILM 0.22 10% 63V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

# SWITCHING REGULATOR

Ref.No. Parts No. SP Description

△ CN151 1-564-215-11 o PIN 4P

CN251 1-566-313-11 o PIN 7P  
CN252 1-560-893-11 o PIN 5P  
CN253 1-560-890-21 o PIN 2P

△ D151 1-807-907-11 s KB088JLM

D153 1-807-913-21 s 11EQS04  
D154 1-807-913-21 s 11EQS04  
D251 1-807-909-11 s F10P20F  
D252 1-807-921-11 s FMG-34S  
  
D253 1-807-911-21 s F10P40FR  
D254 8-719-109-97 s RD6.8ES-B2  
D255 8-719-912-20 s 1SS120  
D256 8-719-912-20 s 1SS120  
D257 8-719-200-02 s 10E2

D258 8-719-911-19 s 1SS119  
D260 8-719-912-20 s 1SS120

△ F151 1-532-604-21 s 250V 3A

FB251 1-543-060-11 s FERRITE BEAD  
FB252 1-543-060-11 s FERRITE BEAD  
FB253 1-543-060-11 s FERRITE BEAD  
FB254 1-543-060-11 s FERRITE BEAD  
FB255 1-543-060-11 s FERRITE BEAD

FB256 1-543-060-11 s FERRITE BEAD

IC251 8-759-007-33 s TL431CLP (TI)

△ L151 1-421-590-11 s LINE FILTER  
L152 1-421-978-11 s LINE FILTER

L251 A-4935-039-A s CHOKe  
L252 1-421-459-21 s CHOKe  
L253 1-421-734-11 s CHOKe

L254 1-408-322-11 s CHOKe  
L255 1-421-459-21 s CHOKe  
L512 1-421-978-11 s LINE FILTER

Q151 1-807-858-11 s IREP451  
Q152 1-807-858-11 s IREP451  
Q153 8-729-113-32 s 2SB733  
Q154 8-729-113-32 s 2SB733  
Q251 8-729-178-54 s 2SC2785\*(28)

Q252 1-807-915-11 s 2SC3692-L  
Q253 8-729-178-54 s 2SC2785\*(28)

Ref.No. Parts No. SP Description

R151 1-202-727-11 s SOLID 4.7M 10% 1/2W

△ R152 1-205-915-11 s WIREWOUND 4.7 10% 7W  
R153 1-205-915-11 s WIREWOUND 4.7 10% 7W  
R154 1-247-692-11 s CARBON 22 5% 1/4W  
R155 1-247-692-11 s CARBON 22 5% 1/4W

△ R158 1-205-652-11 s CEMENT 68 5% 5W  
R251 1-205-622-11 s CEMENT 33 5% 5W  
R254 1-215-865-11 s METAL 220 5% 1W

R258 1-214-669-71 s METAL 3.3 1% 1/4W

△ R259 1-215-889-00 s METAL OXIDE 330 5% 2W

△ R260 1-215-889-00 s METAL OXIDE 330 5% 2W

RV251 1-230-668-11 s VAR, CERMET 1k

△ RY151 1-515-662-11 s POWER

ST251 1-571-055-71 s THERMAL SENSOR

△ T151 A-4935-036-A s CONVERTER  
T152 1-421-819-11 s CURRENT  
T153 1-437-188-11 s DRIVE  
T154 1-437-188-11 s DRIVE

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref.No. Parts No. SP Description

**FRAME**

A-6050-552-A s HEAD DRUM ASS'Y, DBH-06A-R  
A-6730-924-A o INDICATION TUBE ASS'Y  
A-6734-243-A o KEY CHASSIS ASS'Y  
A-6762-349-A s DRUM ASS'Y, UPPER, DBR-06-R

**A** 1-413-307-24 s SWITCHING REGULATOR, UR-21B

1-464-821-11 s CONVERTER, DC-DC (INDICATION TUBE)  
1-520-496-11 s AUDIO LEVEL METER (INDICATION TUBE)  
1-559-261-11 s FLAT CABLE (KEY CHASSIS)  
1-559-265-11 o FLAT CABLE (CASSETTE UP COMPARTMENT)

**A** CB001 1-576-036-11 s BREAKER, CIRCUIT 6.3A

**A** CN001 1-580-375-21 s 3P INLET

CN007 1-509-176-51 s RECEPTACLE, XLR, MALE  
"TIME CODE OUT"  
CN008 1-509-176-51 s RECEPTACLE, XLR, MALE  
"CH-1 OUT"  
CN009 1-509-176-51 s RECEPTACLE, XLR, MALE  
"CH-2 OUT"  
CN010 1-509-176-51 s RECEPTACLE, XLR, MALE  
"CH-3 OUT"  
CN011 1-509-176-51 s RECEPTACLE, XLR, MALE  
"CH-4 OUT"  
CN012 1-509-176-51 s RECEPTACLE, XLR, MALE  
"SELECTED CH-1/CH-3 OUT"  
CN013 1-509-176-51 s RECEPTACLE, XLR, MALE  
"SELECTED CH-2/CH-4 OUT"  
CN014 1-509-095-00 s RECEPTACLE, 8P "MONITOR OUT"  
CN015 1-561-781-21 s RECEPTACLE, BNC "VIDEO-1 OUT"  
CN016 1-561-781-21 s RECEPTACLE, BNC "VIDEO-2 OUT"  
CN017 1-561-781-21 s RECEPTACLE, BNC "VIDEO-3 OUT"  
CN019 1-562-160-00 s RECEPTACLE, 12P, FEMALE  
"DUB/COMPONENT 1 OUT"  
CN029 1-561-781-21 s RECEPTACLE, BNC "COMPONENT 2 Y OUT"  
CN030 1-561-781-21 s RECEPTACLE, BNC "COMPONENT 2 R-Y OUT"  
CN031 1-561-781-21 s RECEPTACLE, BNC "COMPONENT 2 B-Y OUT"  
CN430 1-562-285-11 o PLUG HOUSING (TO SW'ING REG)  
CN431 1-562-833-11 o PLUG HOUSING (TO SW'ING REG)  
CN432 1-562-800-11 o PLUG HOUSING (TO SW'ING REG)

H002 8-825-554-73 s HEAD, CTL PS244-21 "CTL"  
H004 8-825-771-11 s HEAD PS244-2103C "AUDIO/TIME CODE"

L8 1-543-316-21 s SENSOR "TAPE BEGINNING SENSOR"  
L9 1-543-316-21 s SENSOR "TAPE END SENSOR"

Ref.No. Parts No. SP Description

M001 1-541-431-31 s MOTOR, DC "FAN"  
M002 8-835-179-01 s MOTOR, DC MCB2B15 "THREADING"  
M003 8-835-179-01 s MOTOR "L/S POSITION"  
M004 8-835-259-01 s MOTOR, DC BHF-1918A "CAPSTAN"  
M006 A-6737-175-A s MOTOR ASS'Y "S-REEL"

M007 A-6737-175-A s MOTOR ASS'Y "T-REEL"  
M008 1-541-376-11 s MOTOR, DC DNR-4700A "UP/DOWN"

ME002 1-520-494-21 s "RF"

PL001 1-518-508-00 s 12V 60mA "CASSETTE LAMP"  
PL002 1-518-508-00 s 12V 60mA "CASSETTE LAMP"  
PL003 1-518-508-00 s 12V 60mA "CASSETTE LAMP"

PM001 1-454-372-11 s SOLENOID "CLEANER"  
PM002 1-454-338-00 s SOLENOID "PINCH"  
PM003 1-454-417-31 s SOLENOID "S-BRAKE"  
PM004 1-454-417-31 s SOLENOID "T-BRAKE"

**A** S001 1-570-117-31 s ROCKER "POWER"

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

#### 19-4. PACKING MATERIAL AND ACCESSORIES (SUPPLIED)

Parts No.	SP	Description
A-6729-474-A	s	MOUNTED PCB, EX-116
A-6729-475-A	s	MOUNTED PCB, EX-134
A-6729-476-A	s	MOUNTED PCB, EX-151
1-555-873-13	s	CABLE, REMOTE CONTROL 9P

<b>A</b>	1-556-760-11	s	CORD, POWER
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3-701-616-00	s	BAG, POLY
3-701-623-00	s	BAG, POLY
3-701-630-00	s	BAG, POLY
3-701-632-00	s	BAG, POLY
3-701-649-00	s	BAG, POLY
3-725-093-02	o	INDIVIDUAL CARTON
3-721-869-03	o	CUSHION, UPPER
3-721-870-02	o	CUSHION, LOWER

#### 19-5. FIXTURE (OPTION)

Parts No.	SP	Description
J-6001-820-A	s	DRUM ECCENTRICITY GAUGE (3)
J-6001-830-A	s	DRUM ECCENTRICITY GAUGE (2)
J-6001-840-A	s	DRUM ECCENTRICITY GAUGE (1)
J-6031-820-A	s	MULTI CONNECTOR CABLE (DIBNC)
J-6080-011-A	s	REEL TABLE TENSION GAUGE
J-6086-570-A	s	FLATNESS PLATE
J-6087-000-A	s	DRUM ECCENTRICITY GAUGE (5)
J-6152-450-A	s	WIRE CLEARANCE GAUGE
J-6190-800 A	s	TENSION REGULATOR SLANTNESS CHECK GAUGE
J-6320-680-A	s	REEL TABLE HEIGHT GAUGE
J-6320-870-A	s	REEL MOTOR SHAFT SLANTNESS CHECK GAUGE
J-6320-880-A	s	CASSETTE REFERENCE PLATE
Y-2031-001-0	s	CLEANING FLUID
2-034-697-00	s	CLEANING PIECE
7-723-902-00	s	INSPECTION MIRROR
7-732-050-20	s	TENSION SCALE (50G FULL SCALE)
7-732-050-30	s	TENSION SCALE (100G FULL SCALE)
8-960-096-51	s	ALIGNMENT TAPE, CR2-1B PS
8-960-096-91	s	ALIGNMENT TAPE, CR5-1B PS
8-960-098-37	s	ALIGNMENT TAPE, CR5-1A PS
8-960-096-86	s	ALIGNMENT TAPE, CR8-1B PS
9-911-053-00	s	THICKNESS GAUGE
Standard products		HEAD DEMAGNETIZER (HE-4)

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".